FIGURE 8

GTGTACGAAAGAGAAACCCGGAGGGCCCGGGGACTGGGGCCGGGGTCTGCAGGCTCAGCTGAGCCCATGAGCTC CCAGAGCTAACCCCTGAACACCCAGGCGGGCAAAGGGCTGATGTCGGTAGTCCCCATCCTGGAGGGGCAGGCTCT ${\tt GCGCATCTGCTCCTGGC}$ CCATGGAGAACACGGCCCAGCTGCCGAGTGCTGTGTGGATGTGGTGGGCGTCAACGCCAGCTGCCCAGGCGCAA GTCTGTGTGGTCCAGGCTGTTACAGGCGCTGGAACGCGGACGGGAGCGCCAGCTGCGTCCGCTGTGGGAACGGAA CCCTCCCAGCCTACAACGGCTCCGAGTGTAGAAGCTTTGCTGGCCCGGGTGCGCCATTCCCCATGAACAGAAGCT CAGGGACCCCCGGGCCACATCCTGGGGCTCCGCGCGTGGCCGCCTCCTCTTCCTGGGCACGTTCTTCATTA GCTCCGGCCTCATCCTCTCCGTAGCTGGGTTCTTCTACCTCAAGCGCCTCCAGTAAACTCCCCAGGGCCTGCTACA GAAGAAACAAAGCTCCGGCCCTGCAGCCTGGCGAAGCCGCTGCAATGATCCCCCGCCACAGTCCTCAGTACGGA AGCCGCGCTACGTCAGGCGGGAGCGGCCCCTGGACAGGGCCACGGATCCCGCTGCCTTCCCGGGGGAGGCCCGTA GGGAACCAGCACAAAGTGTTGGCATCGCCCGGCCCCGGGACAGTCCTGGGCACAGCCTCGGCTCTGGGTCCCTC ${\tt GACCAGGAGCATCCATGAGACCTCAGAGCTTCAGATCGAGGCCTTGGGGGGTCCGGGCCCCCCAGGAAAC}$ ${\tt ACGGTGAGGCCCCAGCGCCTGCAGCCAAAGCTGGCACGATCTATGGGGCAGGTGCCGCTCTGCCTAGAAAAGCCA}$ GACCCCTCTGAGAACAGTGAGGCTGGTCCTCGTGCCGTTCCAGCCGGTGCCCGGCCAGTGGGGAGGACACAGCCT CCATTTCCGGAGCTGCAGGATAGAGCTTCCTCTTGATCTCTGTTTTTAAGCAGAAATTCATTGTGCTGAAAAGTC $\tt CTCCAGAGCTCTGTGGCCCCGCTCGGATCCGCTGGACCCCCATGCCTGGCTGATCCCTGCCCACGTGGGGCAGGC$ ${\tt CCACATCTAACCCCCACAAGTCACTGCCTCACTGCACCTGCCAAGGCTGCCCTGGCGCTGAGTCCTGGGGTCCCT}$ CCCGGAGTTCCTGGGAGAAAGGCGCCGTCGTGGCCCGCCTCCCGCACGCCAGGCCCGGGCTCCACCGTGGGTCTCA GACGCCCTGCGGCACCGGCACCGTCTTAGCATGGGACCCCCATCTGAGGGGTGGCCTGGCCTTCGGGGTCC CCACGCTCCTTTGCGAAGTCCACTGTGGGTGCCATCATGGTCTCCGGGACCTGGGCCAGCGGGAACGTGGGGGCA

9/6881 **FIGURE 9**

FIGURE 10

 ${ t TCCCGGCGGCGGTGCGGCGGTGCGAGC} { t ATC} { t TCGTGGCTCTTCGGCATTAACAAGGGCCCCAAGGGTGA}$ AGGCGCGGGGCCGCCCTTTGCCGCCCGCGCAGCCCGGGGCCGAGGGCGGGGGGGCCGGGCTTGGGAGA CCGGCCGGCCCAAGGACAAATGGAGCAACTTCGACCCCACCGGCCTGGAGCGCGCCGCCAAGGCGGCGCGCGA GCTGGAGCACTCGCGTTATGCCAAGGACGCCCTGAATCTGGCACAGATGCAGGAGCAGACGCTGCAGTTGGAGCA GAGGAGGAAGACCCTGAGCGAGGAGCACCCAGGCCAGGGCCCAGTATCAAGACAAGCTGGCCCGGCA GCGCTACGAGGACCAACTGAAGCAGCAGCAACTTCTCAATGAGGAGAATTTACGGAAGCAGGAGGAGTCCGTGCA GAAGCAGGAAGCCATGCGGCGAGCCACCGTGGAGCGGGAGATGGAGCTGCGGCACAAGAATGAGATGCTGCGAGT GGAGGCCGAGGCCGCGCGCGCCAAGGCCGAGCAGAATGCAGACATCATCCGCGAGCAGATCCGCCTGAA ${\tt GGCGGCCGAGCACCGTCAGACCGTCTTGGAGTCCATCAGGACGGCTGGCACCTTGTTTGGGGAAGGATTCCGTGC}$ CCGCATCACGGTGCTTGAGGCGCTGCGGCACCCCATCCAGGTCAGCCGGCGGCTCCTCAGTCGACCCCAGGACGC GCTGGAGGGTGTTGTGCTCAGTCCCAGCCTGGAAGCACGGGTGCGCGACATCGCCATAGCAACAAGGAACACCAA GAAGAACCGCAGCCTGTACAGGAACATCCTGATGTACGGGCCACCAGGCACCGGGAAGACGCTGTTTGCCAAGAA ACTCGCCCTGCACTCAGGCATGGACTACGCCATCATGACAGGCGGGGACGTGGCCCCCATGGGGCGGGAAGGCGT GACCGCCATGCACAAGCTCTTTGACTGGGCCAATACCAGCCGGCGCGCCTCCTGCTCTTTGTGGATGAAGCGGA CGCCTTCCTTCGGAAGCCACCGAGAAGATAAGCGAGGACCTCAGGGCCACACTGAACGCCTTCCTGTACCG TGACCGCATCAATGAGATGGTCCACTTCGACCTGCCAGGGCAGGAGGGAACGGGAGCGCCTGGTGAGAATGTATTT TGACAAGTATGTTCTTAAGCCGGCCACAGAAGGAAAGCAGCGCCTGAAGCTGGCCCAGTTTGACTACGGGAGGAA $\tt GTGCTCGGAGGTCGCTGACGGAGGGCATGTCGGGCCGGAGATCGCTCAGCTGGCCGTGTCCTGGCAGGC$ ${\tt CACGGCGTATGCCTCCGAGGACGGGGTCCTGACCGAGGCCATGATGGACACCCGCGTGCAAGATGCTGTCCAGCA}$ ${\tt GCACCAGCAGAAGATGTGCTGGAAGGCGGAAGGGCCTGGGGGACGAGCCTTCCCCATCC} {\color{red}{\textbf{TGA}}} {\tt GTCCA}$ CAGGGAGATCCACAGCTCACGGAGCCTGGCCGGACCCCTCCCACCCTGCCTTGCCGGCCCCTGCACATTTAG GATATGCTCCTGGGTGGGGACTGGGCTGTGCCCAGGGCCTCTGTCCCCCAGGATGTCTTGTGGTGCGGGTCGGCC ACAGCAGAGCCAGGTGAGGGGGCGCCTGCCAGGGCCAGACCCAGGTGGGGCAGCCTGAACCCTGCTTCCCCCTGT GAGGCCGCACTGTCAGCCGGTCCAAGCCTGTGGCTGGAGCTGGGGTCTGTTTACCTAATAAAGTCCCACAG GTGCCTCATT

FIGURE 11

MSWLFGINKGPKGEGAGPPPPLPPAQPGAEGGGDRGLGDRPAPKDKWSNFDPTGLERAAKAARELEHSRYAKDAL NLAQMQEQTLQLEQQSKLKEYEAAVEQLKSEQIRAQAEERRKTLSEETRQHQARAQYQDKLARQRYEDQLKQQQL LNEENLRKQEESVQKQEAMRRATVEREMELRHKNEMLRVEAEARARAKAERENADIIREQIRLKAAEHRQTVLES IRTAGTLFGEGFRAFVTDWDKVTATVAGLTLLAVGVYSAKNATLVAGRFIEARLGKPSLVRETSRITVLEALRHP IQVSRRLLSRPQDALEGVVLSPSLEARVRDIAIATRNTKKNRSLYRNILMYGPPGTGKTLFAKKLALHSGMDYAI MTGGDVAPMGREGVTAMHKLFDWANTSRRGLLLFVDEADAFLRKRATEKISEDLRATLNAFLYRTGQHSNKFMLV LASNQPEQFDWAINDRINEMVHFDLPGQEERERLVRMYFDKYVLKPATEGKQRLKLAQFDYGRKCSEVARLTEGM SGREIAQLAVSWQATAYASEDGVLTEAMMDTRVQDAVQQHQQKMCWLKAEGPGRGDEPSPS

FIGURE 12

FIGURE 13

MAPAAASPPEVIRAAQKDEYYRGGLRSAAGGALHSLAGARKWLEWRKEVELLSDVAYFGLTTLAGYQTLGEEYVS
IIQVDPSRIHVPSSLRRGVLVTLHAVLPYLLDKALLPLEQELQADPDSGRPLQGSLGPGGRGCSGARRWMRHHTA
TLTEQQRRALLRAVFVLRQGLACLQRLHVAWFYIHGVFYHLAKRLTGITYLRVRSLPGEDLRARVSYRLLGVISL
LHLVLSMGLQLYGFRQRQRARKEWRLHRGLSHRRASLEERAVSRNPLCTLCLEERRHPTATPCGHLFCWECITAW
CSSKAECPLCREKFPPQKLIYLRHYR

FIGURE 14

GTGTGGGCGCGTCAGGCCGCGACGAGGGCGCTGAGACAAATTTACATGTATTGGAGACCAGACCAGAAGCCCTTC GATCACAAACATCGACCCAGTGGGAAGAATCCAAATGCGCACGAGGAGGACACTGCGGGGGCACCTGGCCAA GATCTACGCCATGCACTGGGGCACAGACTCCAGGCTTCTCGTCAGTGCCTCGCAGGATGGTAAACTTATCATCTG GGACAGCTACACCACCAACAAGGTCCACGCCATCCCTCTGCGCTCCTCGGGTCATGACCTGTGCATATGCCCC TTCTGGGAACTATGTGGCCTGCGGTGGCCTGGATAACATTTGCTCCATTTACAATCTGAAAACTCGTGAGGGGAA CGTGCGCGTGAGTCGTGAGCTGGCAGGACACACGGTTACCTGTCCTGCTGCCGATTCCTGGATGACAATCAGAT CGTCACCAGCTCTGGAGACACCACGTGTGCCCTGTGGGACATCGAGACCGCCCAGCAGACGACCACGTTTACCGG ACACACTGGAGATGTCATGAGCCTTTCTCTTGCTCCTGACACCAGACTGTTCGTCTCTGGTGCTTGTGATGCTTC AGCCAAACTCTGGGATGTGCGAGAAGGCATGTGCCGGCAGACCTTCACTGGCCACGAGTCTGACATCAATGCCAT TTGCTTCTTCCAAATGGCAATGCATTTGCCACTGGCTCAGACGACGCCACCTGCAGGCTGTTTGACCTTCGTGC TGACCAGGAGCTCATGACTTACTCCCATGACAACATCATCTGCGGGATCACCTCTGTCTCCTTCTCCAAGAGCGG GCGCCTCCTCCTTGCTGGGTACGACGACTTCAACTGCAACGTCTGGGATGCACTCAAAGCCGACCGGGCAGGTGT GGATAGCTTCCTCAAGATCTGGAACTAACGCCAGTAGCATGTGGATGCCATGGAGACTGGAAGACCATTCCAACT TGGACGCGTTACCATGAGAGCATATCCTATCCAACCGTACTAACGTGGACACCCTACACCTCCCCTCAGAACTTC AAAAGGGCAAGATCTTTTTTCCTTCACTTATTGCTGAAACCAAGAGCACAATTCCCATTGAGAGAAAGATCTCTG CACCAGTGTATTTGAATTTTAGACCAGTGACCCTGTTTTGTGGCATTCATGCAAAACATGCTGAGGGCTTTGTTC ATCTGGTCATCGTGTCCAAATTTCAGTCATGTTTGTAGCAAGATTTTGGAAGCATTCATATTTCCTTTTTAAAAT GTATTCCTTTGTGTTCAACAGTTAATCAAAACCAGAGGTCTAGGGCAGCCTCTCTGATGTTGTCAATGATGTAA ATTCAGTCCCTGGTTTTTAATTTTCTGTCTGATGTCACAGATCATTGTTGCACACAAACGTGGCATAGAAAAGAA CATGTTCAGAAGCCATGGGGCCAAGCACATGCGGGGACGGTCTCAAATGCGTGATCAGAGAATCCTTCACCTTTG CTGAAAAGTGAGCTCAGATCCAGCACCATGTTCCTCCTGACCCATCCTGTCTATCTTCTCAGTTGAGTTTTTAAT CTCACTTTGGGTTTCCTTGTGAGGTTGGAGGGAAGTTTATAATAGCCTAACACTACCCCACCCCCAACTAGGAGG AAATCAATGTTTTGAAAATAATGATCTCAGACTTTCTAAGTTAAATTTTTAAAAATTTTTGATTGTTTTGCCATATTG GGTGGGTTTACTCTTAGAATCGCATGCTGTAGAAATGCTCAAAAGTGCATATGGGACTCAGTCCTTAGGTGTTCT TTTTCTTTTAAGAAATAACCTCTTACAGTTGTAACCATTGCGGCTCTGTCCACTTCTCGTTGCTGCTGTGGCA CATATCGGAAGCAGTACAGCGCGCGCTCTACACGCTTGGGTAGCGGGATAAGTCACTGTTTTCTTTATTTCTTT GGAGTGAAGAGCCTGCCCTCCTATATGGATTCTTCAGGGCCCTCCACATCTGAGGTGGCTCATTCCCATCACACA CAGATTGTCCTGGTGTTCATTTCAAGGCCAGTGTTCAGCAGCAGCGTTTGGAAAGCAGGTTCTGTGGGACCCCCC GCCCGCCCCCGCACTCCTTCATAGCAGCAGTAGTGGCTTCTCCATCCTGTTTTCTGCAACATTCTATACAAAA CAACAACTCTGTAGAGCTCTCTGCACCCTTACCCCTTTCCACCTTTTGTATTTTAAATTTTAAAGTCAGTGTACTGC AAGGAAGCTGGATGCAAGATAGATACTATATTAAACTGTACTGTTATTTAAGATGTAATAAAGCAGTTTGACATG

FIGURE 15

FIGURE 16

 $\label{thm:mass} \begin{tabular}{l} MGKTEEKGNGKGAFQERKGPLGAVRKEAGAGAQDAGAAEGAAVKKMTFSEHPYNNLRKRFGALLSDQGFDLMNKF\\ LTYFPGRRISAEDGLKHEYFRETPLPIDPSMFPTWPAKSEQQRVKRGTSPRPPEGGLGYSQLGDDDLKETGFHLT\\ TTNQGASAAGPGFSLKF\\ \end{tabular}$

FIGURE 17

FIGURE 18

MPSSPLRVAVVCSSNQNRSMEAHNILSKRGFSVRSFGTGTHVKLPGPAPDKPNVYDFKTTYDQMYNDLLRKDKEL YTQNGILHMLDRNKRIKPRPERFQNCKDLFDLILTCEERVYDQVVEDLNSREQETCQPVHVVNVDIQDNHEEATL GAFLICELCQCIQHTEDMENEIDELLQEFEEKSGRTFLHTVCFY

FIGURE 19

CCTGGCCACCGGCTCGCGCGCGTGGAGGCTGCTCCCAGCCGCGCCCGAGTCAGACTCGGGTGGGGGTCCCGGCG GCGGTAGCGGCGGCGGCGGCGAGCATGTCGTGGCTCTTCGGCGTTAACAAGGGCCCCAAGGGTGAAGGCGCGG CGCCCAAGGACAAATGGAGCAACTTCGACCCCACCGGCCTGGAGCGCGCCCCAAGGCGGCGCGCGAGCTGGAGC ${\tt ACTCGCGTTACGCCAAGGAGGCCCTGAATCTGGCGCAGATGCAGGAGCAGACGCTGCAGTTGGAGCAACAGTCCA}$ AGACCCTGAGCGAGGAGCCCGGCAGCACCAGGCCCAGGTATCAAGACAAGCTGGCCCGGCAGCGCTACG AGGACCAACTGAAGCAGCAACTTCTCAATGAGGAGAATTTACGGAAGCAGGAGGAGTCCGTGCAGAAGCAGG AAGCCATGCGGCGAGCCACCGTGGAGCGGGAGATGGAGCTGCGGCACAAGAATGAGATGCTGCGAGTGGAGACCG AGGCCCGGGCGCGCCCAAGGCCGAGCGGAGAATGCAGACATCATCCGCGAGCAGATCCGCCTGAAGGCGTCCG AGCACCGTCAGACCGTCTTGGAGTCCATCAGGACGGCTGGCACCTTGTTTGGGGAAGGATTCCGTGCCTTTGTGA CGACAGCCGTCACTGGCCGCTTCATCGAGGCTCGGCTGGGGAAGCCGTCCCTAGTGAGGGAGACGTCCCGCATCA GTGTTGTGCTTAGTCCCAGCCTGGAAGCACGGGTGCGCGACATCGCCATAGCAACCAGGAACACCAAGAAGAACC GGGGCCTGTACAGGCACATCCTGCTGTATGGGCCACCAGGCACCGGGAAGACGCTGTTTGCCAAGAAACTCGCCC TTCGGAAGCGAGCCACTGAGGAGATAAGCAAGGACCTCAGAGCCACACTGAACGCCTTCCTGTACCACATGGGCC AACACAGCAACAAATTCATGCTGGTCCTGGCCAGCAATCTGCCTGAGCAGTTCGACTGTGCCATCAACAGCCGCA GTGTTCTTAAGCCGGCCACAGAAGGAAAACGGCGCCTGAAGCTGGCCCAGTTTGACTACGGGAGGAAGTGCTCGG ${\tt AGGTCGCTCGGCTGACGGAGGCCATGTCGGGCCGGGAGATCGCTCAGCTGGCCGTGTCCTGGCAGGCCACGGCAT}$ ATGCCTCCAAGGACGGGTCCTCACTGAGGCCATGATGGACGCCTGTGTGCAAGATGCTGTCCAGCAGTACCGAC AGAAGATGCGCTGGCTGAAGGCGGAGGGCCTGGGCGCGGGGTCGAGCACCCCCTATCCGGAGTCCAAGGCGAGA $\tt CCCTCACCTCATGGAGCCTGGCCACGGACCCCTCCTACCCCTGCCTTGCCGGCCCCTGCACATTTAGGATATGCT$ ${\tt CCTGGATGGGGACTGGGCCTGTGCCCAGGATGTCTTGTGGTGGCGGTCGGCCGTTCTGCC}$ GAGATGCATTTTCCGTCTGGCTCACAGGGGGAGGGTGAGGCTTTGTACCCCAGCCCCTGCCCAGGCCACTGTGAG GGTGGGTGCTGGCCCCTGGGGCAGAAGGAGTGGGGCAGGCGGGTCTTTGTTCTCGGCTCCCACAGCAGA GCCAGGTGAGGGGGGGCCTGCCAGGACTAGACAGAAGTGGGGCGGC

20/6881 FIGURE 20

ATGAGGCTGCAGAGTGATGTGGGGGCCAGCGGTGACTTCATGACCACACTGCGCCCAGGTGTAAGAGGGCACGCT TCTGCCCAGGCATCGTCCATGGAAGACACGCAGTCGGCCACTGCAGCCTCGGTCCTGGGGTGCCTGGGGCTGGGT TCAAAGGACGCCCTGAATCTGGCGCAGATGCAGGAGCAGACGCTGCAGTTGGAGCAACAGTCCAAGCTCAAACAA CTTGTCAATGAGGATTTACGGAAGCAGGAGGAGTCCGTGCAGAAGCACCATCAGACCTTCTTGGAGTCCATCAGG GCGGCTGGCACCTTGTTTGGGGAAGGATTCCGTGCCTTTGTGACAGACCGGGACAAAGTGACAGCCACGGTGGCT GGGCTGACGCTGCTGGCGGGGTCTACTCAGCCAAGAATGCGACAGCCGTCACTGGCCGCTACATCGAGGCT CGGCTGGGGAAGCCGTCCCTAGTGAGGGAGACGTCCCGCATCACGGTGCTTGAGGCGCTGCGGCACCCCATCCAG ${\tt CAGGTCAGCCGGCGCTCCTCAGTCGACCCCAGGACGTGCTGGAGGGTGTTGTGCTTAGTCCCAGCCTGGAAGCA}$ ACAGGCGGGGACGTGGCCCCCATGGGGCGGGAAGGCGTGACCGCCATGCACAAGCTCTTTGACTGGGCCAATACC GAGGACCTCAGGGCCACACTGAACGCCTTCCTGTACCGCACGGGCCAGCACAACAAATTCATGCTGATCCTG GCCAGCTGCCACCCGAGCAGTTCGACTGGGCCATCAATGCCTGCATCGACGTGATGGTCCACTTCGACCTGCCA GGGCAGGAGGAGCGGCGCCCTGGGATTGGAGGGAGAGGCTCCTCATGAGACCCCCATGTCGGGACTAGAGGGA GGTGTGGGGCGCGCTCTTGCTTCCTGCTGCACATGTGCCTTGAGGCTGTCAGGCTCCCTGTTGCTGGCGGGCCC $\tt CGGTTTCTGAGTCCTTGTGCACCTGACCCAAATCCCTGCTGTCGCCAGTGACGACAAAGCTGCTCTGTTCCA$ AAGAGAGCCTGGTTCTCCCCTGCCGACCCCTCCACTGCCGCCTGCTCCATGCTAGACCAGCTTTCCGGGCGTCTG ATCGCACAGCTGGCCGTGTCCTGGCAGGCCACGGCGTATGCCTCCAAGGACGGGGTCCTGACCGAGGCCATGATG GAGGACGAGCAACCCTCATCCTGA

21/6881 FIGURE 21

MRLQSDVGASGDFMTTLRPGVRGHASAQASSMEDTQSATAASVLGALGLGHWGPQATLRDHSPGMPCSSLSPEAM SKDALNLAQMQEQTLQLEQQSKLKQLVNEDLRKQEESVQKHHQTFLESIRAAGTLFGEGFRAFVTDRDKVTATVA GLTLLAVGVYSAKNATAVTGRYIEARLGKPSLVRETSRITVLEALRHPIQQVSRRLLSRPQDVLEGVVLSPSLEA RVRDIAIMTRNIKKNRGLYRHILLYGPPGTGKTLFAKKLALHSGMDYAIMTGGDVAPMGREGVTAMHKLFDWANT SRRGLLLFVDEADAFLRKRATEKISEDLRATLNAFLYRTGQHSNKFMLILASCHPEQFDWAINACIDVMVHFDLP GQEERARLGLEGEAPHETPMSGLEGEAPHGPLLASGLASLQLPHPALEPRGVGRGSCFLLHMCLEAVRLPVAGGP RFLSPSVHLTQIPAVASDDKSCSVPKRAWFSPADPSTAACSMLDQLSGRLKLAQFDYGRKCLEIARLTEGMSCRK IAQLAVSWQATAYASKDGVLTEAMMDACVQDFVQQHQQMMRWLKGERPGPEDEQPSS

FIGURE 22

FIGURE 23

MLLGRLTSQLLRAVPWAGGRPPWPVSGVLGSRVCGPLYSTSPAGPGRAASLPRKGAQLELEEMLVPRKMSVSPLE SWLTARCFLPRLDTGTAGTVAPPQSYQCPPSQIGEGAEQGDEGVADAPQIQCKNVLKIRRRKMNHHKYRKLVKKT RFLRRKVQEGRLRRKQIKFEKDLRRIWLKAGLKEAPEGWQTPKIYLRGK

FIGURE 24

GCGGTGCGGGCCGGGCGGGCGGGCGGGCGGGTAGCCCCCGCGTCCGAGCCCGGGCCGGGCCCTGAG CGCGCGGCTCCGCGCCGCCGCGCCATGGCGGAGACCAAGATTATCTACCACATGGACGAGGAGGAGACGCC GTACCTGGTCAAGCTGCCCGTGGCCCCGAGCGCGTCACGCTGGCCGACTTCAAGAACGTGCTCAGCAACCGGCC CGTGCACGCCTACAAATTCTTCTTTAAGTCCATGGACCAGGACTTCGGGGTGGTGAAGGAGGAGATCTTTGATGA GGGGTCCCAGGGCACGGACAGCCACACAGACCTGCCCCCGCCTCTTGAGCGGACAGGCGGCATCGGGGACTCCCG GCCCCCTCCTTCCACCCAAATGTGGCCAGCAGCCGTGACGGGATGGACAACGAGACAGGCACGGAGTCCATGGT CAGTCACCGGCGGAGCGTGCCCGACGCCGGAACCGCGAGGAGGCCGCCCGGACCAATGGGCACCCAAGGGGAGA CCGACGGCGGGATGTGGGGCTGCCCCCAGACAGCGCGTCCACCGCCCTCAGCAGCGAGCTTGAGTCCAGCAGCTT TGTGGACTCGGACGAGGATGGCAGCACGAGCAGGCTCAGCAGCTCCACGGAGCAGAGCACCTCATCCAGACTCAT CCGGAAGCACAAACGCCGGCGGAGGAAGCAGCGCCTTCGGCAGGCGGACCGGGCCTCCTCCTTCAGCAGCATAAC CGACTCCACCATGTCCCTCAACATCGTCACTGTCACGCTCAACATGGAAAGACATCACTTTCTGGGCATCAGCAT CGTGGGGCAGAGCAACGACCGTGGAGACGGCGGCATCTACATTGGCTCCATCATGAAGGGCGGGGCTGTGGCCGC TGACGGCCGCATCGAGCCCGGCGACATGTTGCTGCAGGTGAATGACGTGAACTTTGAGAACATGAGCAATGACGA TGCCGTGCGGGTGCTGCGGGAGATCGTTTCCCAGACGGGGCCCATCAGCCTCACTGTGGCCAAGTGCTGGGACCC CACGGCGCACTGACAGGAGCCCTGCCCCGCTACGAGCTGGAAGAGGCGCCGCTGACGGTGAAGAGTGACATGAG CGCCGTCGTCCGGGTCATGCAGCTGCCAGACTCGGGACTGGAGATCCGCGACCGCATGTGGCTCAAGATCACCAT GGCCCGGAAGTACGCCAGCAGCTTGCTGAAGCACGGCTTCCTGCGGCACACGGTCAACAAGATCACCTTCTCCGA GCAGTGCTACTACGTCTTCGGGGATCTCTGCAGCAATCTCGCCACCCTGAACCTCAACAGTGGCTCCAGTGGGAC TTCGGATCAGGACACGCTGCCCCGCTGCCCCACCCGGCTGCCCCCTGGCCTCTGGGTCAGGGCTACCCTACCA GTACCCGGGACCCCACCCTGCTTCCCGCCTGCCTACCAGGACCCGGGCTTTAGCTATGGCAGCGGCAGCACCGG GAGTCAGCAGAGTGAAGGGAGCAAAAGCAGTGGGTCCACCCGGAGCAGCCGCCGGGCCCCGGGCCGTGAGAAGGA GCGTCGGCCGCGGGGCTGGGGGCAGTGCAGTGAATCGGATCACACGGCACCGAGTGGGGTGGGGAGCAGCTG GCGAGAGCGTCCGGCCGGCCAGCTCAGCCGTGGCAGCAGCCACGCAGTCAGGCCTCGGCTACCGCCCCGGGGCT CCCCCGCCCACCCACGACCAAGGCCTATACAGTGGTGGGGGGGCCACCCGGGGGACCCCCTGTCCGGGAGCT GGCTGCCGTCCCCCGGAATTGACAGGCAGCCGCCAGTCCTTCCAGAAGGCTATGGGGAACCCCTGCGAGTTCTT GCCCTGGCAGCCTGGCTGCTCCAGCTCCTGACAGCACCTGTGTCTGAGCAGCCGTGTTGGGGGGCGCTCCCTCTCT GCCCCTCAGCGAGAGCCTCGGACCTCCCAACCCCTTGTGTCTGGTGGGGATCCCTCCTGGGATGAGGAAGACCCC CTCGGGCTCTCGGCTGACCCCCACCTCCTGCACAGCTGTGCCCAGGCCCCCAGGGTGGTCCATGCGGGGCAACCC AGGAGGCGACCCTGTCATCTGTCCCACCTGCTGCTGCCCCTTGGAGCAGCCTGCACCTTCTCTCCCCCATCCGG CAACAGTCTGAAAGTACGTGGAGGACGGGACCGGAAGACGAGAGGGCTGGACATCCTGCCCACCGTGTCCCAG TGGGGAGATGGGCAGTCAGGTGGCCCGTCCTTGGTGAGTGCACACACTGCGCGCACACATCGCGGCCTTCCTGGC TTCTCTGGCCCCCACGTGTCTGTGCTGTAGATACTGTATCAAAGTCCCAGCGTTTAGATGGTTAACATAGAGCTG CTTCTGTGTAAATGCTGCTTATTTTAAACACTAAAAAGCGTTTAATTTTATGGG

25/6881 FIGURE 25

MAETKIIYHMDEEETPYLVKLPVAPERVTLADFKNVLSNRPVHAYKFFFKSMDQDFGVVKEEIFDDNAKLPCFNG RVVSWLVLAEGAHSDAGSQGTDSHTDLPPPLERTGGIGDSRPPSFHPNVASSRDGMDNETGTESMVSHRRERARR RNREEAARTNGHPRGDRRRDVGLPPDSASTALSSELESSSFVDSDEDGSTSRLSSSTEQSTSSRLIRKHKRRRRK QRLRQADRASSFSSITDSTMSLNIVTVTLNMERHHFLGISIVGQSNDRGDGGIYIGSIMKGGAVAADGRIEPGDM LLQVNDVNFENMSNDDAVRVLREIVSQTGPISLTVAKCWDPTPRSYFTVPRADPVRPIDPAAWLSHTAALTGALP RYELEEAPLTVKSDMSAVVRVMQLPDSGLEIRDRMWLKITIANAVIGADVVDWLYTHVEGFKERREARKYASSLL KHGFLRHTVNKITFSEQCYYVFGDLCSNLATLNLNSGSSGTSDQDTLAPLPHPAAPWPLGQGYPYQYPGPPPCFP PAYQDPGFSYGSGSTGSQQSEGSKSSGSTRSSRRAPGREKERRAAGAGGSGSESDHTAPSGVGSSWRERPAGQLS RGSSPRSQASATAPGLPPPHPTTKAYTVVGGPPGGPPVRELAAVPPELTGSRQSFQKAMGNPCEFFVDIM

26/6881 FIGURE 26

GCACCGCCCCGCAAGAAAGATGGCAGTGGCCTGATCCGGGCCCGTTGGCGGCGTCACTGACGCTTCGCTC CGGTCCTCGGATCCCGAGCGCGGGGAGGCAGACCGACTGTGAGCTGCTTGTCCCCATCCTGCGGCCGTCCTGGGG ACACAGAGCCCTCCGTGGTGCCCGGGGATTGGATTGGAGCCAGGACCTCACTTCCTCCTCTGCCCCTGCCCCTGC CCCTCCCAGCACCTGGCCCACACCCTGCAGCCCCCCATGCTCTGGCCCTGGGTGGCGATGGCGTCCAGGTGGG GTCCCCTCATTGGCCTGGCTCCGTGCTCCTGGCTCCTGGGGGCCAGTCCTTCTGATGGACGCGTCTGCACGGC CTGCCAACCACTCGTCCACTCGAGAGAGAGTAGCCAACAGGGAGGAGAATGAGATCCTGCCCCCAGACCACCTGA ACGGGGTGAAGCTGGAGATGGACGGCACCTCAATCGCGGCTTCCACCAGGAGGTCTTCCTAGGCAAGGACCTGG GTGGCTTTGATGAGGACGCGGAGCCGCGGAGCCGGAGGAGCTGATGGTCATCTTTTCCAAGGTGGATGTGA ACACTGACCGGAAGATCAGTGCCAAGGAGATGCAGCGCTGGATCATGGAGAAGACGGCCGAGCACTTCCAGGAGG CCATGGAGGAGAGCAAGACACTTCCGCGCGTGGACCCTGACGGGGACGGTCACGTGTCTTGGGACGAGTATA AGGTGAAGTTTTTGGCGAGTAAAGGCCATAGCGAGAAGGAGGTTGCCGACGCCATCAGGCTCAACGAGGAACTCA AAGTGGACGAGGAAACACAGGAAGTCCTGGAGAACCTGAAGGACCGCTGGTACCAGGCGGACAGCCCCCCTGCAG ACCTGCTGCTGACGGAGGAGGAGTTCCTGTCGTTCCTCCACCCGAGCACAGCCGGGGAATGCTCAGGTTCATGG TGAAGGAGATCGTCCGGGACCTGGACCAGGACGGTGACAAGCAGCTCTCTGTGCCCGAGTTCATCTCCCTGCCCG TGGGCACCGTGGAGAACCAGCAGGGCCAGGACATTGACGACAACTGGGTGAAAGACAGAAAAAAAGGAGTTTGAGG AGCTCATTGACTCCAACCACGACGGCATCGTGACCGCCGAGGAGCTGGAGAGCTACATGGACCCCATGAACGAGT ACAACGCGCTGAACGAGGCCAAGCAGATGATCGCCGTCGCCGACGAGAACCAGAACCACCACCTGGAGCCCGAGG AGGTGCTCAAGTACAGCGAGTTCTTCACGGGCAGCAAGCTGGTGGACTACGCGCGCAGCGTGCACGAGGAGTTT**T** CTGTCCCGGACCCCACCTCTTCCCTGCCGCCCACCGGCCGACCGCCGCCGCCTGCCCCAGTTGATGAGCGGC GTGTCCCCTCTGCAGCGCGCACCCCGGCGGGGCTTTGGCTGTGACGCGGTCGGGGCGGGGGCTGGGCTGTGGCC CCGCGGCGCCCCCCCTGGTCCCTCGAAATCGTGGCATCTCACTTCTGAGAACGAAATCTCGCTTCAGTCA AAAAAACTCCTCCATTTCCTTGAAAACTGAACGATTATTAAAAATAGATTAAACTTCGCTGGAAATGAGTAG CCAGGAAGTTCAGGGGAGGTGCCGGGTCCTTCCCGGGCCTGGCGTGTCGGAGCCACCCAGGTCCCGCAGCTGCC GCTTCAAAAAAAAAAAAAAAAAAAAAAAAAAA

27/6881 FIGURE 27

MVWPWVAMASRWGPLIGLAPCCLWLLGAVLIMDASARPANHSSTRERVANREENEILPPDHLNGVKLEMDGHLNR GFHQEVFLGKDLGGFDEDAEPRRSRRKLMVIFSKVDVNTDRKISAKEMQRWIMEKTAEHFQEAMEESKTHFRAVD PDGDGHVSWDEYKVKFLASKGHSEKEVADAIRLNEELKVDEETQEVLENLKDRWYQADSPPADLLLTEEEFLSFL HPEHSRGMLRFMVKEIVRDLDQDGDKQLSVPEFISLPVGTVENQQGQDIDDNWVKDRKKEFEELIDSNHDGIVTA EELESYMDPMNEYNALNEAKQMIAVADENQNHHLEPEEVLKYSEFFTGSKLVDYARSVHEEF

28/6881 FIGURE 28

FIGURE 29

30/6881 FIGURE 30

 ${\tt MPKRKAEGDAKGGKAKVKDEPQRRSARLSAKPAPPKPEPKPKKTPAKKAEKVPKGKKGKADVDTHGHLGTKALWC} \\ {\tt GKTNLFLCPLLPFHLSA}$

31/6.881 FIGURE 31

TAGCTAGGCAGGAAGTCGGCGGGGGGGGGGGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT $\mathtt{C} \underline{\mathtt{ATG}}\mathtt{TCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTT$ CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG GGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGGCTGTTGAGCACATCAATAAAACTATTGCGCC CAATGTCATCAATGGCGGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCCAGTCGGTGC AGCAAACTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA TGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGA GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTCATCGGCATGGACGTAGCGGCCTCCGA GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCAGCAGGTACATCTCGCCTGACCA GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA CTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGGATGATCTCACAGTGACCAACCC AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGT GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTTGGGGGCGTCATGGTGTCTCATCGTTCGGGGGGA GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCCTTGCCG ATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAAGGCTAAGTTTGCCGG ${\tt CAGGAACTTCAGAAACCCCTTGGCCAAG} {\color{red} {\bf TAA}} {\tt GCTGTGGGCAGGCAAGCCCTTCGGTCACCTGTTGGCTACACAGA}$ $\verb|CCCCTCCCTCGTGTCAGCTCAGGCAGCTCGAGGCCCCGACCAACACTTGCAGGGGTCCCTGCTAGTTAGCGCC|\\$ ${\tt CCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAAGCCCAAGCTCCCTGGAGCCCTGTTGGCAGCT}$ CTAGCTTTGCAGTCGTGTAATTGGCCCAAGTCATTGTTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCAT GTGAGCCTCGTGTCATCTCCGGGGTGGCCACAGGCTAGATCCCCGGTGGTTTTGTGCTCAAAATAAAAAGCCTCA GTGACCCATGAG

32/6881 FIGURE 32

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALELRDNDKTRYMGKGVSKAVEHINKTIAP ALVSKKLNVTEQEKIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAF NVINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEKYGKDATNVGDEGGFAPNILENKEGLE LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSFIKDYPVVSIEDPFDQDD WGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGVMVSHRSGE TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEELGSKAKFAGRNFRNPLAK

33/6881 FIGURE 33

TGGTCCCAAGGCGCGTGCTTTGCAGCAGATGTGTGACCTGGCGTTCCCCTGAGTGCTCGGAAAATGGCCTTGTCT CAGTACTCGGTATGGGAGTCCCAAAAGACAGCTCCAGTTTTACAGGAACCTGGGCAAGTCTGGCCTGCGGGTCTC $\tt CTGCCTGGGACTTGGAACATGGGTGACCTTCGGAGGCCAGATCACCGATGAGATGGCAGAGCAGCTCATGACCTT$ GGCCTATGATAATGGCATCAACCTCTTCGATACAGCAGAAGTCTACGCAGCCGGCAAGGCTGAAGTGGTACTGGG AAACATCATTAAGAAGAAGGATGGAGGCGGTCCAGCCTCGTCATCACCACCAAGATCTTCTGGGGCGGAAAGGC GGAGACGGAGCGGGCCTGTCCAGGAAGCACATAATCGAAGGTCTGAAAGCTTCCCTGGAGCGACTGCAGCTGGA GTACGTGGATGTGGTGTTTGCCAACCGCCCGGACCCCAACACCCCGATGGAAGAGACCGTCCGCCCATGACCCA $\tt CGTCATCAACCAGGGGATGGCCATGTACTGGGGCACGTCACGCTGGAGCTCCATGGAGATCATGGAGGCCTACTC$ CGTGGCCCGGCAGTTCAACCTGACCCCGCCCATCTGCGAGCAGGCTGAGTACCACATGTTCCAGCGTGAGAAAGT GGAGGTGCAGCTGCCGGAGCTGTTCCACAAGATAGGAGTGGGCGCCATGACCTGGTCCCCTCTGGCCTGTGGCAT TGTTTCTGGCAAGTACGACAGTGGCATCCCACCCTACTCAAGAGCCTCCTTGAAGGGCTACCAGTGGCTGAAGGA $\tt CCTTCTGCCAGGGCCTTGGTTGCTGGGGCAGGGCCTCCCCACTGGGGGTCTTCCTCCACCTCCCACTTTCCAAGGCCTCCCACTTCCAAGGCCTCCCAAGTTCAAGTTCA$ GCTCCAGGAATCTGGGGCCTGACCACAGATTCCTCTCCCATCCTTTTCTGCTCCAACCTGCCCCACTGGGTCCCG GCAGGGGCCATGCCTACCAAGCTCGAGCTGGCCCTTGACCCCCACCCCACCCCTTGCTGGCAGGGGCAGGG ACCCCAGGGGGATTGACTCTGCAGTTTGGGAGCCACAAAAAGCGTAGCGTGTGATTTCTAGCTCAGCCTCCCAC CGTCTTCCTCCTACACACCAATGATGAGCCTCATGCCAGTGAGGCCCGGAGCGCTTGGGAGGGGTCCCAGTGGGG ${\tt CAGGCCCTCTGTCTGGCCACCCTCTGTCCTGGCCCCGGAAGGCCCTGTGGTCATGTGCTCCTAGCTGCACGGT}$ GGCTGCTGGCCACACCACGGCAAGTGGCAGCAGGGGCCCGGCCCTGTGCACAAGGATGCACTCCTCTCGGCCCCTG TAGACTTTCTCTAAAGCCGCCCGCCAGCCCAGGCCGCTGCTCTGCACCGAGCTGGTGGGCTTGGGTTTTGTGGAG CGCATGCTTGGACCCTTTCAGTAAGGAAGGGTCTTTGGGGTTTTCTGTGCCCATGACTTGGGGGCTGCACCCCCA CCACTGCCTGACACCTGGGACAGGCTGGGCAGAGGGGGAGAGGGCAGGACAGGCCAGAGTGACGCCCCCGTGCA GCTTGGGCCGGAGGGCAAGGGATGCCAGTAAGTCTGCAGGTGCGGGGTGCCACCTACAGGCCCAGGCCTGTGTCC CAAGCAGTACCCAGGCTTTGCAGACCACGCGGGGCAGGGCTCCACTGAAGCCACCCCCACCCTCGCCAGCTAGC ${\tt TCCATAGGGAAGCCTGTGTCTCCTGCCCCCAGGGCGCACCCTCAGTGCAGGCACCTCTGTTCCCGCTTTGCCCCT}$ GGAGGAGCCACTATTCCAGAAGGCTCCACCCTGCCGTCCTGCGGGAGCCTGCTGTCCAGTCCTGGCCGGGCCAAG GCCTGGGAAACTGTGAAAGTCAGAAAGGCCAGCGGGGAGAGGGTGGGGGGAGGGGGGAGGGGGATCAGCTTCTG CTATTACCGACCCCCTTCATGCTGCCCCTGGCGCCTAGAACCCTTGCCCCTCATAGACCAAGTCCCGGGGG

34/6881 FIGURE 34

35/6881 FIGURE 35

 ${\tt MAPVKKLVVKGGKKKKQVLKFTLDCTHPVEDGIMDAANFEQFLQERIKVNGKAGNLGGGVVTIERSKSKITVTSE} \\ {\tt VPFSKRYLKYLTKKYLKKNNLRDWLRVVANSKESYELRYFQINQDEEEEEDED} \\$

36/6881 FIGURE 36A

 ${\tt GCCGCGGCGTCCTCGACAACCTATCGAAGGCGCCC} \underline{{\tt ATC}} {\tt GAGCGACCGGCGCCCCTGGCCGTGCTTCCCTTCTCGGA}$ $\verb|CCCCGCGCACGCCTGAGCCTGCGCGGCCTGAGCCAGCTGCGCGCGAGCGCAAGTTCCTGGACGTGACCCT|\\$ GGAGGCGGCGGGCGCGCCACTTCCCGGCGCACCGTGCGGTGCTGGCCGCCAGCCCCTACTTCCGCGCCAT GTTCGCGGGGCAGCTGCGCGAGAGCCGCCGAGCGGGTGCGCCTGCACGGAGTGCCTCCCGACATGCTGCAGCT GCTGCTGGACTTCAGCTACACGGGCCGCTGGCGGTAAGCGGCGACAACGCTGAGCCGCTGCTGCGCGCCGCCGA CCTGCTGCAGTTCCCGGCCGTGAAGGAGGCGTGCGGGGCCTTCCTGCAGCAGCAGCTCGACCTGGCCAACTGCCT GGACATGCAGGACTTCGCTGAGGCCTTCAGCTGCTCGGGACTGGCGAGCGGCGGCGCGGCGGTTCATTCTGCGCCA CGTGGGCGAGCTGGGCGCCGAGCAGCTGGAGCGGCTGCCACTGGCGCCCTGCTGCGCTACCTGCGGGACGACGG CGCGCACTGGCCGCAGCTGCTGGAGGCCGTGCGCCTTCGTGCGCCGCTTCTACCTGTTGGCGCACGTCGA $\tt CTACGACCGCCACGGCCCGGGCCCTGTCCCCGAATGCGTCCTCGCCCGTCCACCGGTCTCGCCGAGATCCTCGT$ GCTCGTGGGCCGCTGCGACCAGGACTGTGACGACTGTCACTGCTACAACCCGCAGACGGGTCAGTG GCGCTACCTGGCCGAGTTCCCAGACCACCTGGGCGGAGGCTACAGCATCGTGGCGCTGGGCAATGACATCTACGT GACGGGTGGGTCCGATGGCTCCCGGCTCTATGACTGCGTGTGGAGGTACAACTCAAGCGTGAATGAGTGGGCGGA $\tt CGACAGCACCGAGCGCTATGACCACCACCGACTGCTCCTGGGAGGCCCTGCAGCCCATGACCTACCCCATGGACAA$ GTGCTACGACCCGGACCCGTGTGGTCGCTGGTGGACTGCGGCCAGCTCCCGCCCTGGTCCTTCGCCCCCAA GACTGCGACTCTAAACGGACTCATGTACTTTGTCAGGGATGACTCCGCTGAGGTGGACGTGTACAACCCGACGAG GAACGAATGGGACAAGATCCCGTCCATGAATCAGGTAAATTTTCAGGCGGGCCAGCATTGGAAGCACAGGCTGGT TTAATAGAAGGCTGCTCTTACCCTTATTTTGCACTTAAGGCTCACTGAGACACAGATGTTAAGTAATACCCTATG GGAGCAAGGCATACAGTCATCTGGGGACACCTGTTCCAGAGAGGGACAGCAGGTACAGAGGCCCTGCAGCAGGGC TTTTTATTTTTGAGACAGGGTCTTGCTCTGTCACCCAGGCTGGAGTGCAGTGGTACAATCATGGCTCACTGCAGC CTCCACCTCCTTGACTCGCAGTCCTCCCACCGCACCTTCCTGAATAGCTGAGACTACAGGCGTGTGCCACCACAC CCAGTAATTTTTTTCTCATATGTAGATACAAAAGGATATTCTTAAAATTTTTATAGAGACAGGGTCTTGCTGTG TTACCCAGGCTGGTCTCACACTCCTGGCCTCAAGTGACCCTCCTGTCTCAGCCTCCCAAAGTGCTAGGATTATAG TTTTTAGTAGAGACGGGATTTCACTGTTTAGCCAGGATGGTCTGGATCTCCTGACCTTGTGATCTGCCTGGCTC AGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATGCCCAGCCCACTGTGGGAATACTTGTGTTGAGCAC TTGCTGTGTTCTGAATAGGACAACCAGGGTCCACCCCTTCTCTCTGGGCTTGTTGAGAAGAGGGGTGCCCAGC CTGACAGTGATGGGACAGGGAGGCTTCAGTGCCATTTGGCCATGTGAGCAGTGTTAGTCTGAGGTACACATCATA TTGCCTACAGCCTTCTTTCCTGTGTGTCTGTTAACATTTCCAAACCTACACTCCGTGACATCCAGCCTCACAGCT TACATCACAGCTTAATGTCCTGGCATTTAAGAGACCCAGCGTTCTGTTTTCCCCGCAGTAAGCTGCACATAGTCA TAGCGAATTTGGGAAAGATGGAAGGAATCATCCAGCCTCGCGGTTCAGAGCCCAGCTCTGCCACTGTCAGCCATG CAAGCCTCAGTTTTCCCATCTGTAACATGGGGAGAACAGCACTGCTCAGCCCAGAGGGCCACTGCAGAGATTCTG ACCATAGGGAAGGCCCAGCTGCCTCCGGGGAGGCCCGTTCTCCTAGGCAGGGTGTTGGAAAGGGGTTGGCCTCTC TGCTGCTTTCTGGGAGAGCCAAGGCCACCCCTCTGGGGTACTGACAGGGCATGCCTTGTCTCCAGTGGTTCCCCA GGTGGGGCCCTGCCCTCTCCTCTGACCTCCACTCACTCATCCCTTTGGCCCACAGGTACATGTGGGGGGC AGCCTGGCCGTCCTTGGGGGAAGCTGTACGTCTCTGGGGGATACGACAATACATTTGAACTCTCGGACGTGGTA

37/6881 FIGURE 36B

GAGGCCTATGACCCAGAGACTCGCGCGTGGAGCGTGGTGGGGCGGCTCCCAGAACCCACCTTCTGGCATGGCAGT GTCAGCATCTTCCGCCAGTTCATGCCCCAGACCTTCTCGGGTGGGCGTGGCTTCGAGTTGGACAGTGGCAGCGAT ${\tt GACATGGACCCAGGCCGACCCGGCGGGACCCCGATGAGCTGCACTAGCCCCAGTCTGGCCCGGCACGG}$ GCCTCGGTGCAGGTAACTGGCACCTCTGCGGGGCAGTGCCCCACTCCTTTGTGCACAAGGACACGTTGGGCTCAC AGGAGGAGCACAGGCTCTTGGGTGGCGAAGCCAGCCCAGGATCCATTACCTGGAAGGTTTCTGTACCTTGAGAGC CTGAATCAGAGGCCGTCGGGAACGCCCTCCCTGCAGTTGAGGAAGAGCCACTTTCCTGCCAGCACATGTTTCTGG GTCTTGGAGGTCACCCCCACCCGGGGATCACAGCTCACCCACGCGGCGCACACCCCTCCTGCCGTTGTCATCTG AGGCTGAGGATGGCCTGAACCTGGAGCAGCCGGACCAGGCAGACGGGCTGAAGTGGGGTCCCAAATTCCATGTCCA GAGGTGTGGGGAGCCTGCCTAGCTCCTGGCCCCTGCCAGGGGCTTACATCAAAACACCTCAGAGGGCTGCC CTCCAGAGGCTGCACCCAGAACAGTGGGACATGAGCAGGGGTGTGGGCTTGGAGGGTGAAGAGATGTGGTCCTA TCAGATGCTGGGCCTCCTCAGCCATAGCCCCCTGCTCCTACCCCTGACTGGCTCTTGCGTCCTCACCTCTCACC $\tt CTCTCCTTCCCGGGAGGCCCTGGGAGGTGATCATTGACACCCAGCCAAGCAGCAGCAGCTGCGGGTGCCCAAGCCCT$ CCAAAGTTGAAAATGCTTGCAGTTTGACCTTAGAAGAAGTGGGAAGAAGAAGGAGCTCTACAGGGTCAGCTTTGT $\tt TTGATTTGTCCAGTCTAAGAAGTCCCATTGCCAAAGCTTTCTGCAGGAGGGTGAATGCCGCAGCTTGGCAGCCCC$ TGGGTTTCTCTTGGAAATGGTCAGTTTCCCCTCAAAGTACCCAAAGTAGCCTTGGCTTGAGTTTTTGTCCTTGCC TCCTTTTTAGAGAGAGGGCATTTAGACTGCATTTTCCTGGTTAAAGAAGGTTAAAGCAAATGTTTATTGCCTTT TCTAGTGAACTAACTCGTAGAGATGTTCTCAGCAGGAAGACAGTCTTAGCACTGTCACTTAGCAGATTGCACTTA AGTCCCTTGTGCTGGCCAGATGGCGTGGCTGGTTGCCTTAATATGTCCCAGGACCCCTGACAGGGCTGCCTGGCC TCTCCCTCGTGCTCCTCAAGAGCCCAGTCCATACACTGTGGATGTCATTGCTGTCGGGTTAGGAAGTCTTGTCCT AGAACGCCCTGGCTGGTATGACCACAGTTCATGGCGGCTCTTCTCGCTTGGGTCATGGTCATCTTCCAGCACCTG TTTCCTGCCCTTCTCCTCTGCTCCCTTGGGGCTACCCCTTGGCCCCTCCTGGTCTGTGCAAACTCCCTCAG GCGGGGCAGCTTGTCTCCCTTGTCAGCAGGGGCGTAAGGGCTGGGTTTGGCCATACAAGGTTGGCTACGCCCTCA ATCCCTGACCGTTCCAGGCACTGAGCTGGGCACCCACGGAAGGACATGCTGTCCAGACTGTGATGACTGCCAGCA ${\tt CAGGGCATCTCGGGCTTGGCTGGGAGCCTTGCCCCTGTGGAACTCTGGGTTCCTGTTTTCTCAGTCTTT}$ TTTGCGGCTTTGCTGTGGTTGGCAGCTGCCGTACTCCAGGCTTGTGTCGGCCACTCAGATGAGGGCTGTGGTGCG AGCCAGTGCAGGAGAGCTGCGCTTGGGATTGTGCCCTCTCTGTGTCTCTCCGGACCTACCCAGGTCTCCAC ${\tt CATCAGGACCCTGTCTTTGGGTTTAGAAGACCAAGTATGGGGAAAACCAGGCACCAGCCTCTGCAGCAATGGGTC}$ CCTCTAGCCTGTGGACACCAGCTGGGGGATCCAGGGTCAGGCCCCCTCCTCTCCCCAGTTTCCCTCTGCTGTGGG TTCTGGGCTGTCATGTCTCCACCACTTAAGGATGTCTTTACACTGACTTCAGGATAGATGTTGGGATGCCTGGGC ATGGCCACATGTTACATGTACAGAACTTTGTCTACAGCACAAATTAAGTTATATAAACACAGTGACTGGTATTTA ATGTCCAGAATCCTGCTTAAGGTTTTAGGGTACCTTCAGTACTTTTTGCAATAAAAGTATTTCCTATCCATTTGG

38/6881 FIGURE 37

MERPAPLAVLPFSDPAHALSLLRGLSQLRAERKFLDVTLEAAGGRDFPAHRAVLAAASPYFRAMFAGQLRESRAE RVRLHGVPPDMLQLLLDFSYTGRVAVSGDNAEPLLRAADLLQFPAVKEACGAFLQQQLDLANCLDMQDFAEAFSC SGLASAAQRFILRHVGELGAEQLERLPLARLLRYLRDDGLCVPKEEAAYQLALRWVRADPPRRAAHWPQLLEAVR LPFVRRFYLLAHVEAEPLVARCPPCLRLLREARDFQAARYDRHDRGPCPRMRPRPSTGLAEILVLVGGCDQDCDE LVTVDCYNPQTGQWRYLAEFPDHLGGGYSIVALGNDIYVTGGSDGSRLYDCVWRYNSSVNEWAEVAPMLKAREYH SSSVLDGLLYVVAADSTERYDHTTDSWEALQPMTYPMDNCSTTACRGRLYAIGSLAGKETMVMQCYDPDTDLWSL VDCGQLPPWSFAPKTATLNGLMYFVRDDSAEVDVYNPTRNEWDKIPSMNQVNFQAGQHWKHRLVLILQPKCHRDE CLGSTAMMDGSHLN

39/6881 FIGURE 38A

ACACCGGGGCCGCCGCGGAGCCTCATGGGGGTTGGAGTCCCCAAGGTTTCCTTTGTGCGCAGTATTGGCGGG CCACCCAGACTACATTTCCCGACAGGCCTCCCGGCTCTCCCGCCCTCCCGAGACACGAGCCGAACTGGGCG TCAGGTCGGGGAGCCGGTCGGGTTCCCGCTCACCGCCGCCGCCGCCGCCCCTGCAGCCACTCTCCCGCCTCTAC CGCCGCGGGAGCTGCATCGTCCACTCCGGTCGGCGGTGGAACCGCCAGTCCGGGGTCACAGAGCTTGAGAAGCGA CGCGCTGAGCCCCCATCACCTCCAGCCCGGGCGACCCCTCCCGGGTCCGCCCTCGCCCTGCGCAGCCGCCCGAG ACATGGACTCTGACTCTTGCGCCGCCGCCTTCCACCCGGAGGAATACTCCCCCAGTTGCAAGAGGCGCAGGACCG TGGAAGACTTCAACAAATTCTGCACCTTTGTCTTGGCCTATGCTGGCTACATCCCTTATCCGAAGGAGGAACTCC CTTTAAGGAGCAGCCCCAGCCCTGCTAACAGCACTGCTGGTACCATTGACAGCGACGGCTGGGACGCGGGTTTCT CAGACATCGCGTCCTCAGTGCCCTTGCCAGTCTCTGACCGCTGCTTTAGCCACCTGCAGCCTACTCTTTGCAGC GAGCCAAGCCCAGTAACTTCCTGCTGGACAGAAAGAAAACGGACAAGCTGAAGAAGAAGAAGAAGAAGAAGCGCA AGACCCCCACGAGTCCCACCTTGCAGGATATCCCCCAGGCTCCCAGCGACCCCTGCTCGGGCTGGGACTCCGATA CTCCCTCGAGTGGATCTTGTGCCACTGTGTCACCTGATCAGGTCAAAGAAATAAAAACTGAAGGCAAACGGACTA TCGTCCGGCAGGGAAAGCAGGTGGTGTTCCGAGATGAGGACAGCACTGGCAATGATGAGGACATCATGGTGGACT ATGAGTGCCACACCTGGATTCACCTGTCCTGTGCGAAAATCCGGAAATCCAATGTTCCAGAAGTGTTTGTCTGCC AAAAGTGCCGGGACTCCAAGTTTGACATCCGCCGTTCCAACCGCTCGCGGACGGGCTCCCGGAAGCTGTTCCTGG TTGAGCACAGAACCCTCAGCTCTGGTGCGGGCAGATCCCTGCCATTTAGGTGCCTAAGCAAAAGGACAGGCTGTC CTGCAGTGGAGGTGGACTGGACACCCACGTGCAGCGGGTTTGGCTCATTTGAAAATGAGGGTCCGTGGTAGCTGT GCGTTTTGCTATCATTGCTAAGAGATTCCCGCTGATTGGGCTCAGTGCCAGCTGTTATTCTGCTTCCACTGTGTT GGGGAGAGGTGTTCGCTTTCCCCAGCCTGTTAATGAACAGCCATACGTGTAAGCTTTTTCTTGAGTGTTAAGTCT TTTACCAAAAGTGTCTGTACAGCAGCCATCCAAGTTGCCCCTACTTAGTGGCTTGCCCTCTGCCTCAGCTG CTGGTGGTTCTTAGGTTTCCTTCTGTTTGTTAAAAGGGACAATGTGGCCACTTCTCTGTGGAAAGGGAGTTGGTT GGGGGGTTGAGATGGCCCGTGTTCATAACTCAGTTTCCTGTTTTGCACGATGTAAAAACCCTGTCTTTTTGCACG ATACAGCCAAAAGTATTGGCTGATTTCTTGCTGAGTGCCCTCTTAGTTGGTGTGTGAGGTCTTGGTGGGCTCAGG CCAGCTGTTTGCGAGTGTGGGAACTCATAGGTTCTGTCTTTGTCTTTCTCTTTCACCTCATTCTGGTAGCAGCAT TCTCCGTTGGGTGACTCTTGTGTGCCCTTTAGACAGGCTGGCCTGCCGGTTCCACAGGGTACAGTTAGGACTTGA GTCTTTCTTTTTCTGTTTTGAGTTGGTGAGTGAGTGATAGGGTAACATGGGCCTTCAGGATGACCCCTTGGAACT GTGCCGAGTTCCTTAAATCTCAGCTGGGATCCTGGACCTGGGAGGCCCCTGTGAGGGCCCAGCTCTGGAAAAACCT GGGAGTTGATGCCGGAGGCTGTGGAAGAACTCTGCTCGAGGGCAGGGTGCCCTGGAACACTGGTAGTTCTGGGGC TGGGAGGGAGGGGCTCCGGCTTTCTCTGAAATGAACACTGCTCTTCAGCAGTTCAAGTACTTGTTCTCAAAAC TCATGTTTGTTTTCAGTGGGATGGGCCCGCGTTCTCACTGCTGGGGGCCTTCCCCTTCATGTGGCACCTTTGTGCC AGGCCACCAGGCAGACTCTTCCCACCTTCTCCCACTGAAGCACCAAGGGGCTTGAACCGTAATTTGGCTAATCAG AGGCATTTTTTTTGTCCTAGTATCTTTCACACTTGTCCAACCGTCTTATTTTTTTAAAAGTTCTGTTGCTTGTAT TAACACGAAACTAGAGAGAAATAGTTTCTGAAGCCAGTTTATTGTGAAGATCCCCAAGGGGGGAGGTTCGGTAGAG AAAAATAGTAAGCTGGTTTAGAAACTGACGAGGGCAAACAGCCAGGACGCATTGGAGAGGAATTTGCCAAAGATC TACCCTGAGATAACGCCTGTCCAGTGTCTTCACCACGTGAATAACCAGCGCTCCAAAGTGTTTTTCTGCTTTGAA AAAAAAAATTCCACAAGCTTTTAAAGGTGCATTTAAGAATCCATGTGACTTTAGAATGGAACTGCCGGCCCTGG CAACTGTCACGTGTGCTAGAAGGTTCGATGCCTCTGGAATGCATGTGATACTCATCTCCATTTTGTTTCCTTGAT

40/6881 FIGURE 38B

FIGURE 39

MDSDSCAAAFHPEEYSPSCKRRRTVEDFNKFCTFVLAYAGYIPYPKEELPLRSSPSPANSTAGTIDSDGWDAGFS DIASSVPLPVSDRCFSHLQPTLLQRAKPSNFLLDRKKTDKLKKKKKRRRDSDAPGKEGYRGGLLKLEAADPYVE TPTSPTLQDIPQAPSDPCSGWDSDTPSSGSCATVSPDQVKEIKTEGKRTIVRQGKQVVFRDEDSTGNDEDIMVDS DDDSWDLVTCFCMKPFAGRPMIECNECHTWIHLSCAKIRKSNVPEVFVCQKCRDSKFDIRRSNRSRTGSRKLFLD

42/6881 FIGURE 40

GACGGCTCCGGGCCGCCAGGGGCCGCTGTGGCCCAGCCGGGCTGGCCCGCGCTGTCCCTGACGCGGATCACTGGC CCCTCTTGAGCACGGCCTTGCCGGTTTGGCGGGGTGAAAGGTTGCGAAGATGGCGACGGCCTTGAGCGAGGAGGA GCTGGACAATGAAGACTATTACTCGTTGCTGAACGTGCGCAGGGAGGCCTCTTCTGAAGAGCTGAAAGCTGCCTA ${\tt CCGGAGGCTCTGTATGCTCTACCATCCAGACAAGCACAGAGCCCAGAGCTCAAGTCACAGGCGGAACGACTGTT}$ AGGACTGGAAATGGAAGGATGGGAGGTTGTGGAAAGGAGGAGAACCCCTGCTGAAATTCGAGAGGAGTTTGAGCG GCTGCAGAGAGAGAGAGAGAGAGAGAGTTGCAGCAGCGAACCAATCCCAAGGGAACGATCAGCGTTGGAGTAGA TGCCACCGACCTTTTTGATCGCTATGATGAGGAGTATGAAGATGTGTCCGGCAGTAGCTTTCCGCAGATTGAAAT CTCAACCCAGAATGGAAATGGAGGAGGTTCCATTAACTTTGCGCTCAGACGAGTAACTTCGGCAAAGGGATGGGG AGAGTTGGAATTTGGAGCTGGAGACCTACAGGGGCCTTTGTTCGGTCTCAAGCTGTTCCGTAATCTCACACCAAG ATGCTTTGTGACAACAACTGTGCTCTGCAGTTTTCATCCCGTGGAATCCGACCCGGCCTGACCACTGTCCTAGC TCGGAACCTAGACAAGAACACCGTGGGCTACCTGCAGTGGCGATGGGGTATCCAGTCAGCCATGAACACTAGCAT CGTCCGAGACACTAAAACCAGCCACTTCACTGTGGCCCTGCAGCTGGGAATCCCTCACTCCTTTGCACTGATCAG CTATCAGCACAAATTCCAAGATGACGATCAGACTCGTGTGAAAGGATCCCTCAAAGCAGGCTTCTTTGGGACGGT GGTGGAGTACGGAGCTGAGAGGAAGATCTCCAGGCACAGCGTTTTGGGTGCAGCTGTCAGCGTTGGAGTTCCACA GGGTGTTTCTCTCAAAGTCAAGCTCAACAGGGCCAGTCAGACATACTTCTTCCCTATTCACTTGACGGACCAGCT TCTGCCCAGCGCCATGTTCTATGCCACCGTGGGGCCTCTAGTGGTCTACTTTGCCATGCACCGTCTGATCATCAA ACCATACCTCAGGGCTCAGAAAGAAGGAATTGGAGAAGCAGAGGGAAAGCGCCGCCACCGATGTGCTGCAGAA GAAGCAAGAGGCGGAGTCCGCTGTCCGGCTGATGCAGGAATCTGTCCGAAGGATAATTGAGGCAGAAGAGTCCAG AATGGGCCTCATCGTCAATGCCTGGTACGGGAAGTTTGTCAATGACAAGAGCAGGAAGAGCCGAGAAGGTGAA GGTGATTGACGTGACTGTGCCCCTGCAGTGCCTGGTGAAGGACTCGAAGCTCATCCTCACGGAGGCCTCCAAGGC TGGGCTGCCTGGCTTTTATGACCCGTGTGTGGGGGAAGAAGAACCTGAAAGTGCTCTATCAGTTCCGGGGCGT CCTGCATCAGGTGATGGTGCTGGACAGTGAGGCCCTCCGGATACCAAAGCAGTCCCACAGGATCGATACAGATGG ATAAACTGCCAAGAACCAGATTTTTAAAAGGCCGCAAAAAATCTTTTCCTGGGAGTCTACAAATTTGGAAATGAA AAAACCCAGACATCAGATGTTTTTATTTTATATTATTATAGAAGGTGGTACCATTATCAATTATGTGAAGGG ACATGCAGACACCCCAGCTTTTGAGGGTGCTGGGGGTAGGACTGAGGCAGCCCCACTGGGAACCAGACTGCAGCC TGGCCCATGGCTGTTTTCCCAAGGATCAGTTCCTGGAGGGAAGGGCTCTGGCCCTGACTCCGCTGTGTCCCGAGC GTCAGGGAGCCTCTGCTGTGCTGGCTTCCCATGACCACCTCCTCTTGCTGAAATATTACTGCTTGAATCTGGAGC AGATTGCGGGTTTATAAAACTGCTTTTTATCTGAGAACAAACGGGTTTGGAAATTAGTCGTCTTTTTTCCCCACT CCCAGAGCTGCTCAAGTCATTCCACCGGCCCCCTCGGCTTGGGACAGGGTAGTGTAACTCCCGATCCCAGGGCCT AGCCCTGACACAGGTGGCTTCCCGTATCCCGGTGGGAAAACGCCCTGCCACCAGCGGGCTTGAGCTGGCCTGTGT CCCTCCACCGCCTGCACCACCCCCCCAGAGTGCAGTGCTGGGCAAGGGCAGCTCAAGAGGACAGGACCAGGCG CTTGGCAAGACATCAGACACCCAACCCAAAGGCGTGGACCCCAGGCCCGTGGTACCCAGCAGGTGGCA ACCCTTCCTCCACGTGCCCACTTGGGATGCAGAATGCAGCGGAGCTAGGACCCCCTCCACGGCCTGGACCTCGGC TGCAGTAAAGTTACGTGAGGCCTGTCTCTCGGGGCCTGGAAGTGGCAGCCATCAGTTGCTCTTGCTGACCCCTCG GTTTTGAAAAGCAGTTCGGGTTGTCCAATTCTGTAACATTCATCTCCATTTTTTAAAAAGGTTTCTCTGACGGCC CCACGGCCCGAGCCGCGTGAGCGTCGTGTTGCATGAGCCTCGGGCCCCGGGCTTCCCGTGCGCCTCTGCCGCAGG TGCTTCTGGGCACCCATCCTCTGCGTTTCATTTGCAGTCGACTGTACAGAAGGCACTCACCACAATAAACCTTTC CTGAAAGC

43/6881 FIGURE 41

TGCGAGGCAGAGTGCTAGCGGGAGCGGAGCCAGCAAGAGGCGCCTGCGCGATGTCCGGGCCCCTGAGCCCGCGG CGCTGAGCCAGCCGGGACGGACATGCGCGGGGAGGGCGCCGCGGGGGCAGCCGCCGCTCCTCCGGGGGAATGAAAGC TACTGGTTGATTTTAAAGTGCCTGGGCCTCACAGGTTTGGAGATGTCCCAGAATAAGGCACAATGTCAATAGCAG GAGTTGCTGCTCAGGAGATCAGAGTCCCATTAAAAACTGGATTTCTACATAATGGCCGAGCCATGGGGAATATGA GGAAGACCTACTGGAGCAGTCGCAGTGAGTTTAAAAACAACTTTTTAAATATTGACCCGATAACCATGGCCTACA GTCTGAACTCTTCTGCTCAGGAGCGCCTAATACCACTTGGGCATGCTTCCAAATCTGCTCCGATGAATGGCCACT GCTTTGCAGAAAATGGTCCATCTCAAAAGTCCAGCTTGCCCCCTCTTCTTATTCCCCCAAGTGAAAACTTGGGAC CACATGAAGAGGATCAAGTTGTATGTGGTTTTAAGAAACTCACAGTGAATGGGGTTTGTGCTTCCACCCCTCCAC TGACACCCATAAAAAACTCCCCTTCCCTTTTCCCCTGTGCCCCTCTTTGTGAACGGGGTTCTAGGCCTCTTCCAC CGTTGCCAATCTCTGAAGCCCTCTCTCTGGATGACACAGACTGTGAGGTGGAATTCCTAACTAGCTCAGATACAG ACTTCCTTTTAGAAGACTCTACACTTTCTGATTTCAAATATGATGTTCCTGGCAGGCGAAGCTTCCGTGGGTGTG GACAAATCAACTATGCATATTTTGATACCCCAGCTGTTTCTGCAGCAGATCTCAGCTATGTGTCTGACCAAAATG GAGGTGTCCCAGATCCAAATCCTCCTCCACCTCAGACCCACCGAAGATTAAGAAGGTCTCATTCGGGACCAGCTG GCTCCTTTAACAAGCCAGCCATAAGGATATCCAACTGTTGTATACACAGAGCTTCTCCTAACTCCGATGAAGACA AACCTGAGGTTCCCCCAGAGTTCCCATACCTCCTAGACCAGTAAAGCCAGATTATAGAAGATGGTCAGCAGAAG TTACTTCGAGCACCTATAGTGATGAAGACAGGCCTCCCAAAGTACCGCCAAGAAACCTTTGTCACCGAGTAACT CGCGCACACCGAGTCCCAAAAGCCTTCCGTCTTACCTCAATGGGGTCATGCCCCCGACACAGAGCTTTGCCCCTG ATCCCAAGTATGTCAGCAGCAAGCACTGCAAAGACAGCAGCGAAGGATCTGCCAGTAAGGTTCCTTGCATTC TGCCCATTATTGAAAATGGGAAGAAGGTTAGTTCAACACATTATTACCTACTGCACCACCACCATACCTGG ACAAATATGAAAAATTTTTTAGGGAAGCAGAAGAAACAAATGGAGGCGCCCAAATCCAGCCATTACCTGCTGACT GCGGTATATCTTCAGCCACAGAAAAGCCAGACTCAAAAACAAAAATGGATCTGGGTGGCCACGTGAAGCGTAAAC ATTTATCCTATGTGGTTTCTCCTTAGACCTTGGGGTCATGGTTCAGCAGAGGTTACATAGGAGCAAATGGTTCTC AATTTTCCAGTTTGATTGAAGTGCAGAGAAAAATCCCTTAGATTGCAAAATAAAATAGTTGAACTCTCTGTCTTC ATGTGGAAGGTTTAGAGCAGTTGTGAGATGCTGTTATGCTGAGAAACCCTGACTTTGTTAGTGTTGGAAAAAAGT CATACCTATATATAAACTTGTGGTATAACCATAGACCATAGCTGCAGGTTAACCAATTAGTTACTATCGTAGAGT AATATATTCAGAATAATAAACTCAAGCTGGAGAAATGAGTCCTGATAGACTGAAAATTGAGCAAATGGAAGAA GATACAGTATTGTTTAGATCAGAATCATTAAAAAATATTTTTGTTTAGTAAGTTTTGAAGATTTCTGGCTTTTAGG CCTTTTCTATTTTGTTCCATTTATTTTTGCAGGCAATCTTTTCCATGGAGGGCAGGGTATCCATTCTTTACCATG GGTGTACCTGCTTAGGTTAAAAATCATACCAAGGCCTCATACTTCCAGGTTTCATGTTGCGTCTTGTTGAGGGAG GGAGAGCAGGTTACTTGGCAACCATATTGTCACCTGTACCTGTCACACATCTTGAAAAATAAAACGATAATAGAA TAGAAGCAGTGGGGTACGTTAGACTCAGATGGAAAAGTATTCTAGGTGCCAGTGTTAGGATGTCAGTTTTACAAA AGACTGTATTAATAAACATACAACACAAGCTGGCCTTGTGTTGCTGGTTCCTATTCAGTATTTCCTGGGGATTGT TTGCTTTTTAAGTAAAACACTTCTGACCCATAGCTCAGTATGTCTGAATTCCAGAGGTCACATCAGCATCTTTCT GCTTTGAAAACTCTCACAGCTGTGGCTGCTTCACTTAGATGCAGTGAGACACATAGTTGGTGTTCCGATTTTCAC ATCCTTCCATGTATTTATCTTGAAGAGATAAGCACAGAAGAGAGGTGCTCACTAACAGAGGTACATTACTGCAA TGTTCTCTTAACAGTTAAACAAGCTGTTTACAGTTTAAACTGCTGAATATTATTTGAGCTATTTAAAGCTTATTA TATTTTAGTATGAACTAAATGAAGGTTAAAACATGCTTAAGAAAAATGCACTGATTTCTGCATTATGTGTACAGT ATTGGACAAAGGATTTTATTCATTTTGTTGCATTATTTTGAATATTGTCTTTTCATTTTAATAAAGTTATAATAC **ТТАААААААААААААААААА**

FIGURE 42

45/6881 FIGURE 43

MASKRALVILAKGAEEMETVIPVDVMRRAGIKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKEGPYDVVVLPGG NLGAQNLSESAAVKEILKEQENRKGLIAAICAGPTALLAHEIGCGSKVTTHPLAKDKMMNGGHYTYSENRVEKDG LILTSRGPGTSFEFALAIVEALNGKEVAAQVKAPLVLKD

46/6881 FIGURE 44

47/6881 FIGURE 45

 ${\tt MSTGPTAATGSNRRLQQTQNQVDEVVDIMRVNVDKVLERDQKLSELDDRADALQAGASQFETSAAKLKRKYWWKNCKMWAIGITVLVIFIIIIIVWVVSS}$

48/6881 FIGURE 46

GGTCTGTGCTTTTAATAGGACTGTCTCCAAAGTTGATGATTTCTTGGCCAATGAGGCAAAGGGAACCAAAGTGGT GGGTGCCCAGTCCCTGAAAGAGATGGTCTCCAAGCTGAAGAAGCCCCGGCGGATCATCCTCCTGGTGAAGGCTGG GCAAGCTGTGGATGATTTCATCGAGAAATTGGTACCATTGTTGGATACTGGTGACATCATCATTGACGGAGGAAA TTCTGAATATAGGGACACCACAAGACGGTGCCGAGACCTCAAGGCCAAGGGAATTTTATTTGTGGGGAGCGGAGT CAGTGGTGGAGAGGAAGGGCCCGGTATGGCCCATCGCTCATGCCAGGAGGGAACAAAGAAGCGTGGCCCCACAT ${\tt AGCAGGCCACTTCGTGAAGATGGTGCACAACGGGATAGAGTATGGGGACATGCAGCTGATCTGTGAGGCATACCA}$ AGACTCATTCCTGATTGAAATCACAGCCAATATTCTCAAGTTCCAAGACACCGATGGCAAACACCTGCTGCCAAA GATCAGGGACAGCGGGGCAGAAGGGCACAGGGAAGTGGACCGCCATCTCCGCCCTGGAATACGGCGTACCCGT CACCCTCATTGGAGAAGCTGTCTTTGCTCGGTGCTTATCATCTCTGAAGGATGAGAAAATTCAAGCTAGCAAAAA GCTGAAGGGTCCCCAGAAGTTCCAGTTTGATGGTGATAAGAAATCATTCCTGGAGGACATTCGGAAGGCACTCTA $\tt CGCTTCCAAGATCATCTCTTACGCTCAAGGCTTTATGCTGCTAAGGCAGCCACCGAGTTTGGCTGGACTCT$ CAATTATGGTGGCATCGCCCTGATGTGGAGAGGGGGGCTGCATCATTAGAAGTGTATTCCTAGGAAAGATAAAGGA TGCATTTGATCGAAACCCGGAACTTCAGAACCTCCTACTGGACGACTTCTTTAAGTCAGCTGTTGAAAACTGCCA GGACTCCTGGCGGCGGCAGTCAGCACTGGGGTCCAGGCTGGCATTCCCATGCCCTGTTTTACCACTGCCCTCTC CACCTATGAACTCTTGGCCAAACCAGGCAGTTTATCCACACCAACTGGACAGGCCATGGTGGCACCGTGTCATC CTCGTCATACAATGCCTGATCATGCTGCTCCTGTCACCCTCCACGATTCCACAGACCAGGACATTCCATGTGCCT CATGGCACTGCCACCTGGCCCTTTGCCCTATTTTCTGTTCAGTTTTTTAAAAGTGTTGTAAGAGACTCCTGAGGA AGACACAGTTTATTTGTAAAGTAGCTCTGTGAGAGCCACCATGCCCTCTGCCCTTTGCCTCTTGGGACTGACCA GGAGCTGCTCATGTGCGTGAGAGTGGGAACCATCTCCTTGCGGCAGTGGCTTCCGCGTGCCCCGTGTGCTGGTGC ${\tt GGTTCCCATCACGCAGACAGGAAGGGTGTTTGCGCACTCTGATCAACTGGAACCTCTGTATCATGCGGCTGAATT}$ CCCTTTTTCCTTTACTCAATAAAAGCTACATCAGACTG

49/6881 FIGURE 47

MAQADIALIGLAVMGQNLILNMNDHGFVVCAFNRTVSKVDDFLANEAKGTKVVGAQSLKEMVSKLKKPRRIILLV KAGQAVDDFIEKLVPLLDTGDIIIDGGNSEYRDTTRRCRDLKAKGILFVGSGVSGGEEGARYGPSLMPGGNKEAW PHIKTIFQGIAAKVGTGEPCCDWVGDEGAGHFVKMVHNGIEYGDMQLICEAYHLMKDVLGMAQDEMAQAFEDWNK TELDSFLIEITANILKFQDTDGKHLLPKIRDSAGQKGTGKWTAISALEYGVPVTLIGEAVFARCLSSLKDERIQA SKKLKGPQKFQFDGDKKSFLEDIRKALYASKIISYAQGFMLLRQAATEFGWTLNYGGIALMWRGGCIIRSVFLGK IKDAFDRNPELQNLLLDDFFKSAVENCQDSWRRAVSTGVQAGIPMPCFTTALSFYDGYRHEMLPASLIQAQRDYF GAHTYELLAKPGQFIHTNWTGHGGTVSSSSYNA

50/6881 FIGURE 48

CGCCGCTCCGGCCTCCCGCGACTTCTCGAAGGTGGGCAGGTCCCACCTTGTGGAGGATCGAGGTGACCGGGGACG CCGGGGTACCAGAATCTGGCGAGATCCGGACTCTAAAGCCGTGTCTGCTGCGCCGCAACTACAGCCGCGAACAGC ACGGCGTGGCCGCCTCCTGCCTCGAAGACCTGAGGAGCAAGGCCTGTGACATTCTGGCCATTGATAAGTCCCTGA ${\tt CACCAGTCACCCTTGTCCTGGCAGAGGATGGCACCATAGTGGATGATGACGATTACTTTCTGTGTCTACCTTCCA}$ ATACTAAGTTTGTGGCATTGGCTAGTAATGAGAAATGGGCATACAACAATTCAGATGGAGGTACAGCTTGGATTT CCCAAGAGTCCTTTGATGTAGATGAAACAGACAGCGGGGCAGGGTTGAAGTGGAAGAATGTGGCCAGGCAGCTGA ${\tt AAGAAGATCTGTCCAGCATCATCCTCCTATCAGAGGAGGACCTCCAGATGCTTGTTGACGCTCCCTGCTCAGACC}$ TGGCTCAGGAACTACGTCAGAGTTGTGCCACCGTCCAGCGGCTGCAGCACACACTCCAACAGGTGCTTGACCAAA GAGAGGAAGTGCGTCAAGCAGCTCCTGCAGCTGTACCTCCAGGCTTTGGAGAAAGAGGGCAGCCTCTTGT ${\tt CAAAGCAGGAAGAGTCCAAAGCTGCCTTTGGTGAGGAGGTGGATGCAGTAGACACGGGTATCAGCAGAGAGACCT}$ CCTCGGACGTTGCGCTGGCGAGCCACATCCTTACTGCACTGAGGGAGAAGCAGGCTCCAGAGCTGAGCTTATCTA GTCAGGATTTGGAGTTGGTTACCAAGGAAGACCCCAAAGCACTGGCTGTTGCCTTGAACTGGGACATAAAGAAGA ${\tt GGAGCATCTCAGCAAGCCAAGGCCTCACCACCTGGTGACCTGCAGAATGCTAAGCGAGCCAGACAGGATCCCACA{ t T}}$ **AG**CAGCAGCGGGAAGTGTGCCAAGGAAGCTCTGTGGCGTTGTTGTTATTGGTAGACACCCTCAGCCTCATCATTTG ACTACCTATGTACTACTCTACCCCTGCCTTAGAGCACCTTCCAGAGAAGCTATTCCAGGTCTCAACATACGCCG TTCCACCAATTTTTTTTTTAGCCCCACCAGCTTCAGGACTTCTGCCAATTTTGAATGATATAGCTGCACCAACAA TATCCCGCCTCCTCTAATTACATATGATGTTCTCTGTTCAAAAGTAATTGGCAGTGATTGGCCAGGCGCAGTGGC AGCTACTTGGGAGGCTGAGGCAGGAGATGGCATGAACCTGGGAGGCAGAGCTTGCAGTGAGCTGAGATTGCGCC

FIGURE 49

MEVTGDAGVPESGEIRTLKPCLLRRNYSREQHGVAASCLEDLRSKACDILAIDKSLTPVTLVLAEDGTIVDDDDY FLCLPSNTKFVALASNEKWAYNNSDGGTAWISQESFDVDETDSGAGLKWKNVARQLKEDLSSIILLSEEDLQMLV DAPCSDLAQELRQSCATVQRLQHTLQQVLDQREEVRQSKQLLQLYLQALEKEGSLLSKQEESKAAFGEEVDAVDT GISRETSSDVALASHILTALREKQAPELSLSSQDLELVTKEDPKALAVALNWDIKKTETVQEACERELALRLQQT QSLHSLRSISASKASPPGDLQNPKRARQDPT

52/6881 FIGURE 50

GACCTGCAGCCTGTGGCCCGGCCAGGCCCTGTCGCTGCAGGTGGAGCAGCTGCTCCACCACCGGCGCTCGCGCTA CCAGGACATCCTCGTCTTCCGCAGTAAGACCTATGGCAACGTGCTGGTGTTGGACGGTGTCATCCAGTGCACGGA GAGAGACGAGTTCTCCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT GATCATCGGGGGCGAGATGGAGGTGTCCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG TGAGATCGACGAGGATGTCATCCAAGTCTCCAAGAAGTTCCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA GGTGACCCTACATGTGGGTGACGGTTTTGAGTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA CTCCTCAGACCCCATGGGCCCCGCCGAAAGTCTCTTCAAGGAGTCCTATTACCAGCTCATGAAGACAGCCCTCAA GGAAGATGGTGTCCTCTGCCGGGGGGGGGTGCGAGTGCCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT CTGCCAGTCCCTGTTCCCCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCCAGCGGCCAGATCGGCTT GATGCAGCTGAAGTACTACAACTCCGACGTGCACCGCCGCCTTTGTGCTGCCCGAGTTTGCCCGCAAGGCCCT ${\tt GAATGATGTGAGC} \underline{{\tt TGA}}{\tt GCCCAGGCGCCACCACTGATGCCACCCAGGACCTCGGACCTTGGAGCCTGCGGGGTGCC}$ TGTGTACAGCGCCATCTCTCTGCCTTCTGTTGCCCCCG

53/6881 FIGURE 51

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSLQVEQLLHHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD EFSYQEMIANLPLCSHPNPRKVLIIGGGDGGVLREVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT LHVGDGFEFMKQNQDAFDVIITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ SLFPVVAYAYCTIPTYPSGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMQLKYYNSDVHRAAFVLPEFARKALND VS

54/6881 FIGURE 52

55/6881 FIGURE 53

MPLTPTVQGFQWILRGPDVETSPLGAPRAASHGVG

56/6881 FIGURE 54

AGATGGAAGATGAGGAGGTCGCTGAGAGCTGGGAAGAGGCGGCAGACAGCGGGGAAATCCAAATCTCCTCCCAAA GTGCCCATTGTGATTCAGGACGATAGCCTTCCCGCGGGGCCCCCTCCACAGATCCGCATCCTCAAGAGGCCCACC AGCAACGGTGTGGTCAGCAGCCCCAACTCCACCAGCAGGCCCACCCTTCCAGTCAAGTCCCTAGCACAGCGAGAG GCCGAGTACGCCGAGGCCCGGAAGCGGATCCTGGGCAGCCCCAGCCCCGAGGAGGAGCAGGAGAAACCCATCCTC GATGGGTCTCAAGGCTTCAAACAGCGCAGATAAATGCAGGCAAGAAAAGATGCCGCCGTTGCTGCCGTCACCGCC TCCTGGGTCGTCCGCCACGGGTTGCACTGCCGTGGCAGACAGCTGGACTTGAGCAGAGGGAACGACCTGACTTAC TTGCACTGTGATCCCCCTTGCTCCGCCCACTGTGACCTTGAACCCCATGCACTGTGACCTCCCCCCTTCTCCCCCC TTCCCACTGTGATTGGCACATCGACAAGGGCTGTCCCAAGTCAATGGAAAGGGAAAGGGTGGGGGTTAGGGGAAG GTTGGGGGGACCCAGCAAGGACTCAGAGAGTCAGACAGTGCCACTTGGCCACTTGGGGTAAAGCCAGTGCCAGCA ATAACAGTTTATCATGCTCATTAATTTGGGATTTCAAAACACAAATGAAAACTCACACCCCACCCCCCAAGTG AAGGGTAGTTTGGTAGTCTACTTAAAAATGTTTCTGGGAAATTCACTAGAAACATTAACCAATAGGATTTTGGTG AGCTTAGCTTCTGTATTCCTACTGCCGCCCAGAAAAGGGGCCAGGGCTCTGCAGCCGCCAGGACAGACGAGCACCC CATGCCTATACCTCCCCCGAGCTAAGTCCCAGGGCATCTGGGCCTTGCCTGGAGACTGGGCTAGCTCTGTAG GCTCGGAGAGCCTGGGGAGGGTGCCAACCCCACCTCTAGTATTTTGGGAGATAGGGAAAGTGAACCGACTTCCCC TTCCCATACCCCTCAGGGTGGTTCCCTACCAGCCAGGCTTACTACTTCTAGAAGAAAGCAGAGTGCCAGGGAGTG AGATTGCATCCCTGGGCTTAGAAGTGACGGAGAGAGACTTGTTTAGTATTTTGCCATCAGCACAAGGAAAACCA GGAGAGAGTCTGCCTCCAGGACTCTGAGCCTTCTGCCTCGTATGTTCAGAAGGTGGATAGGTCTTCCCACTCCAG CATGGCTTGAACTCTTAGGGGTCTGCAGTGCTCCATCTCCATTGGTGGCCCCAGCTCAGTAACTATACCTGGTAC ATTTCCTGTGTGCAATCAGTACCTTGAAGGCAGAACATTCTGAATAAAGTTGGAAAAAGAACA

57/6881 FIGURE 55

AAGCCCCCGAGCCCAGTGTGTCTGGACCTTTTCCCTGTTGCCCCAGAGGAGCTTCGGGCTCCTGGCAGCCGCTGG TCCCTGGGGACCCCTGCCCCTCTCCAAGGGTTGCTATGGCCATTATCCCCAGGAGGCTCAGATACAGAGATCACC AGCGGGGGATGCGGCCCAGCAGGGCTGGCAGCTGGCCACACTGTCCTGGTGCCCAGCCCCAGCTCTGGAGGGA ATGCGGGTGTACCAGCGTGAAGAGGTCCCCGGCTGCCCCGAGGCCCACGCTGTCTTCCTAGAGCCTGGCCAGGTA GTGCAAGAGCAGGCCCTGAGCACAGAGGAGCCCAGGGTGGAGTTGTCTGGGTCCACCCGAGTGAGCCTCGAAGGT CCTGAGCGGAGGCGCTTCTCGGCATCGGAGCTGATGACCCGGCTGCACTCTTCTCTGCGCCTGGGGCCGAATTCA GCAGCCCGGCACTCATCTCTGGGTCAGGCACCGGAGCAGCCCGGGAAGGGAAAGCATCTGGAATGGAGGCTCGA AGTGTAGAGATGAGCGGGGACCGGGTGTCGCGGCCAGCCCCTGGTGACTCACGAGAGGGCGATTGGTCCGAGCCC AGGCTAGACACACAGGAAGAGCCGCCTTTGGGGTCCAGGAGCACCAACGAGCGCCCAGTCTCGATTCCTCCTT AACTCCGTCCTCTATCAGGAATACAGCGACGTGGCCAGCGCCGCGAACTGCGGCGGCAGCAGCGCGAGGAGGAG GGCCCGGGGACGAGGCCGAGGGCGCAGAGGAGGGGGCCGGGGCCGCGGGGCCAACCTCTCCCCCAGCAGCTCC TTCCGGGCGCAGCGCTCGGCGCAGGCTCCACCTTCTCGCTGTGGCAGGATATCCCCGACGTACGCGGCAGCGGC GTCCTGGCCACGCTGAGCCTGCGGGACTGCAAGCTGCAGGAGGCCAAGTTTGAGCTGATCACCTCCGAGGCCTCC TACATCCACAGCCTGTCGGTGGCTGTGGGCCACTTCTTAGGCTCTGCCGAGCTGAGCGAGTGTCTGGGGGCGCAG GACAAGCAGTGGCTGTTTTCCAAACTGCCCGAGGTCAAGAGCACCAGCGAGAGGTTCCTGCAGGACCTGGAGCAG CGGCTGGAGGCAGATGTGCTGCGCTTCAGCGTGTGCGACGTGCTGGACCACTGCCCGGCCTTCCGCAGAGTC TACCTGCCCTATGTCACCAACCAGGCCTACCAGGAGCGCACCTACCAGCGCCTGCTCCTGGAGAACCCCAGGTTC CCTGGCATCCTGGCTCGCCTGGAGGAGTCTCCTGTGTGCCCAGCGTCTGCCCCTTACCTCCTTACCTGCCC TTCCAGAGGATCACCCGCCTCAAGATGTTGGTGGAGAACATCCTGAAGCGGACAGCACAGGGCTCTGAAGACGAA GACATGGCCACCAAGGCCTTCAATGCGCTCAAGGAGCTGGTGCAGGAGTGCAATGCTAGTGTACAGTCCATGAAG AGGACAGAGGAACTCATCCACCTGAGCAAGAAGATCCACTTTGAGGGCAAGATTTTCCCGCTGATCTCTCAGGCC GCCGTTTTCGTCCATGCCAAGATGGCTGAGCTGCAGGTGCGGGACCTGAGCCTGAAGCTGCAGGGCATCCCCGGC GAGAAGCAGCGATGGATCTCAGCCTTGTGCCCCTCCAGCCCCCAGGAGACAAGGAGGTCATCAGTGAGGGGGAA GATTGCCCCCAGGTTCAGTGTGTTAGGACATACAAGGCACTGCACCCAGATGAGCTGACCTTGGAGAAGACTGAC ACAAGTGCCACCAGCAAACTGGGGGAGGCTCCTGTGTGATGGGCAGCCATGGCCTAGGACCCCACCTCCATGCCT GGCTCCTGGATGGTCCTGGAGGGGCCTGCAGTGTCTCCATTCCCCAAGCTGCTCCTGCTGGCACTTCGCTTCTGT GGCCTTGGCATTGAGGGCACAGGCTGGACACAGGAATGGGGGGCGCCTCCAGAGGGTCTCTCCGTCCTCATGCTCC TCAGTGTCCACACTTCAAGGCCAAGGATAGTTTCTTCCTCTGACATGGGGACCATAACAGGTGATCACTGATACC CTCC

58/6881 FIGURE 56

MDCGPPATLQPHLTGPPGTAHHPVAVCQQESLSFAELPALKPPSPVCLDLFPVAPEELRAPGSRWSLGTPAPLQG
LLWPLSPGGSDTEITSGGMRPSRAGSWPHCPGAQPPALEGPWSPRHTQPQRRASHGSEKKSAWRKMRVYQREEVP
GCPEAHAVFLEPGQVVQEQALSTEEPRVELSGSTRVSLEGPERRFSASELMTRLHSSLRLGRNSAARALISGSG
TGAAREGKASGMEARSVEMSGDRVSRPAPGDSREGDWSEPRLDTQEEPPLGSRSTNERRQSRFLLNSVLYQEYSD
VASARELRRQQREEEGPGDEAEGAEEGPGPPRANLSPSSSFRAQRSARGSTFSLWQDIPDVRGSGVLATLSLRDC
KLQEAKFELITSEASYIHSLSVAVGHFLGSAELSECLGAQDKQWLFSKLPEVKSTSERFLQDLEQRLEADVLRFS
VCDVVLDHCPAFRRVYLPYVTNQAYQERTYQRLLLENPRFPGILARLEESPVCQRLPLTSFLILPFQRITRLKML
VENILKRTAQGSEDEDMATKAFNALKELVQECNASVQSMKRTEELIHLSKKIHFEGKIFPLISQARWLVRHGELV
ELAPLPAAPPAKLKLSSKAVYLHLFNDCLLLSRRKELGKFAVFVHAKMAELQVRDLSLKLQGIPGHVFLLQLLHG
QHMKHQFLLRARTESEKQRWISALCPSSPQEDKEVISEGEDCPQVQCVRTYKALHPDELTLEKTDILSVRTWTSD
GWLEGVRLADGEKGWVPQAYVEEISSLSARLRNLRENKRVTSATSKLGEAPV

59/6881 FIGURE 57A

GAAGTTGCGCGCAGGCCGGCGGGGGGGGGCGGACACCGAGGCCGGCGTGCAGGCGTGCGGGTGTGCGGGAGCCGG GCTCGGGGGGATCGGACCGAGAGCGAGAAGCGCGGCATGGAGCTCCAGGCAGCCCGCGCCTGCTTCGCCCTGCTG TGGGGCTGTGCCCGCCGCCGCCGCCGCCGCCGCGCGCAGGGCAAGGAAGTGGTACTGCTGGACTTTGCTGCAGCTGGA ATCTACATGTACTCCGTGTGCAACGTGATGTCTGGCGACCAGGACAACTGGCTCCGCACCAACTGGGTGTACCGA GGAGAGGCTGAGCGTATCTTCATTGAGCTCAAGTTTACTGTACGTGACTGCAACAGCTTCCCTGGTGGCGCCAGC TCCTGCAAGGAGACTTTCAACCTCTACTATGCCGAGTCGGACCTGGACTACGGCACCAACTTCCAGAAGCGCCTG TTCACCAAGATTGACACCATTGCGCCCGATGAGATCACCGTCAGCAGCGACTTCGAGGCACGCCACGTGAAGCTG AACGTGGAGGAGCGCTCCGTGGGGCCGCTCACCCGCAAAGGCTTCTACCTGGCCTTCCAGGATATCGGTGCCTGT GTGGCGCTGCTCCGTCCGTGTCTACTACAAGAAGTGCCCCGAGCTGCTGCAGGGCCTGGCCCACTTCCCTGAG ACCATCGCCGGCTCTGATGCACCTTCCCTGGCCACTGTGGCCGGCACCTGTGTGGACCATGCCGTGGTGCCACCG GGGGGTGAAGAGCCCCGTATGCACTGTGCAGTGGATGGCGAGTGGCTGGTGCCCATTGGGCAGTGCCTGTGCCAG GCAGGCTACGAGAAGGTGGAGGATGCCTGCCAGGCCTGCTCGCCTGGATTTTTTAAGTTTGAGGCATCTGAGAGC CCCTGCTTGGAGTGCCCTGAGCACACGCTGCCATCCCCTGAGGGTGCCACCTCCTGCGAGTGTGAGGAAGGCTTC TTCCGGGCACCTCAGGACCCAGCGTCGATGCCTTGCACACGACCCCCTCCGCCCCACACTACCTCACAGCCGTG GGCATGGGTGCCAAGGTGGACTGCGCTGGACGCCCCTCAGGACAGCGGGGGCCGCGAGGACATTGTCTACAGC GTCACCTGCGAACAGTGCTGGCCCGAGTCTGGGGAATGCGGGCCGTGTGAGGCCAGTGTGCGCTACTCGGAGCCT CCTCACGGACTGACCCGCACCAGTGTGACAGTGAGCGACCTGGAGCCCCACATGAACTACACCTTCACCGTGGAG AGCCGAGTGTGGAAGTACGAGGTCACTTACCGCAAGAAGGGAGACTCCAACAGCTACAATGTGCGCCGCACCGAG GGCCAGGGGGCCGCAACGTGCACGAATTCCAGACGCTGTCCCCGGAGGGATCTGGCAACTTGGCGGTGATT GGCGGCGTGGCTGTCGGTGCTCCTGCTTCTGGTGCTGGCAGGAGTTGGCTTCTTTATCCACCGCAGGAGGAAG AACCAGCGTGCCCGCAGTCCCCGGAGGACGTTTACTTCTCCAAGTCAGAACAACTGAAGCCCCTGAAGACATAC ACTCGGCAGAAGGTGATCGGAGCAGGAGAGTTTGGGGAGGTGTACAAGGGCATGCTGAAGACATCCTCGGGGAAG AAGGAGGTGCCGGTGGCCATCAAGACGCTGAAAGCCGGCTACACAGAGAAGCAGCGAGTGGACTTCCTCGGCGAG GCCGGCATCATGGGCCAGTTCAGCCACCACACATCATCCGCCTAGAGGGCGTCATCTCCAAATACAAGCCCATG ATGATCATCACTGAGTACATGGAGAATGGGGCCCTGGACAAGTTCCTTCGGGAGAAGGATGGCGAGTTCAGCGTG CTGCAGCTGGTGGGCATGCTGCGGGCATCGCAGCTGGCATGAAGTACCTGGCCAACATGAACTATGTGCACCGT GACCTGGCTGCCCGCAACATCCTCGTCAACAGCAACCTGGTCTGCAAGGTGTCTGACTTTGGCCTGTCCCGCGTG CTGGAGGACGACCCGAGGCCACCTACACCACCAGTGGCGGCAAGATCCCCATCCGCTGGACCGCCCGGAGGCC ATTTCCTACCGGAAGTTCACCTCTGCCAGCGACGTGTGGAGCTTTGGCATTGTCATGTGGGAGGTGATGACCTAT GGCGAGCGGCCCTACTGGGAGTTGTCCAACCACGAGGTGATGAAAGCCATCAATGATGGCTTCCGGCTCCCCACA TTCGCTGACATCGTCAGCATCCTGGACAAGCTCATTCGTGCCCCTGACTCCCTCAAGACCCTGGCTGACTTTGAC ATGACCAACGACATCAAGAGGATTGGGGTGCGGCTGCCCGGCCACCAGAAGCGCATCGCCTACAGCCTGCTG GGACTCAAGGACCAGGTGAACACTGTGGGGATCCCCATCTGAGCCTCGACAGGGCCTGGAGCCCCATCGGCCAAG TTCCTCCCCTGCAACTTCCGCTGAGGGGTCTCGGATGACACCCTGGCCTGAACTGAGGAGATGACCAGGGATGC TGGGCTGGGCCCTCTTTCCCTGCGAGACGCACACAGCTGAGCACTTAGCAGGCACCGCCACGTCCCAGCATCCCT GGAGCAGGAGCCCCGCCACAGCCTTCGGACAGACATATGGGATATTCCCAAGCCGACCTTCCCTCCGCCTTCTCC CACATGAGGCCATCTCAGGAGATGGAGGGCTTGGCCCAGCGCCAAGTAAACAGGGTACCTCAAGCCCCATTTCCT CACACTAAGAGGGCAGACTGTGAACTTGACTGGGTGAGACCCAAAGCGGTCCCTGTCCCTCTAGTGCCTTCTTTA GACCCTCGGGCCCCATCCTCATCCCTGACTGGCCAAACCCTTGCTTTCCTGGGCCTTTGCAAGATGCTTGGTTGT

60/6881 FIGURE 57B

FIGURE 58

62/6881 FIGURE 59

GCTCGTGTTAAATCTAGAACCGTAGCCAGACATGGGACTGGAGGACGAGCAAAAGATGCTTACCGAATCCGGAGA
TCCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAAATTAGTGGATCCCCTAACAACAGTGAGAGAGCAATGCGAGCAGTT
GGAGAAATGTGTAAAGGCCCGGGAGCGGCTAGAGCTCTATGATGAGCATGTATCCTCTCGATCACATACAGAAGA
GGATTGCACGGAGGAGCTCTTTGACTTCTTGCATGCAAAGGACCATTGCGTGGCCCACAAACTCTTTAACAACTT
GAAATAAATGTGTGGACTTAATTCACCCCAGCCTTCATCATCTGGGCATCAGAATATTTCCTTATGGTTTCGGAT
GTACCATTTGTTTCTTATTTGTGTAACTGTAAGTTCACATGAACCTCGTGGGTTTTGGCTTAGGCTGGTAGCTTC
TATGTAATTCGCAGTGATTCCATCTAAATAAAAGTTCTGTGATCTGC

63/6881 FIGURE 60

64/6881 FIGURE 61

MIRTLLLSTLVAGALSCGDPTYPPYVTRVVGGEEARPNSWPWQVSLQYSSNGKWYHTCGGSLIANSWVLTAAHCI SSSRTYRVGLGRHNLYVAESGSLAVSVSKIVVHKDWNSNQISKGNDIALLKLANPVSLTDKIQLACLPPAGTILP NNYPCYVTGWGRLQTNGAVPDVLQQGRLLVVDYATCSSSAWWGSSVKTSMICAGGDGVISSCNGDSGGPLNCQAS DGRWQVHGIVSFGSRLGCNYYHKPSVFTRVSNYIDWINSVIANN

65/6881 FIGURE 62

GGCGGCGGGGCACCCGACGAGGCGCCGAGGCGCTGGGCAGCGGGACTGCGAGCGCCAAGCTGCTGCG GCGCGCAGACCTCAACCAGGGCATCGGCGAGCCCCAGTCGCCCAGCCGCGTCTTCAACCCCTACACCGAGTT CATCGACCTGATGGAGCTAAAACTCATGATGGAGAAACTTGGGGCCCTCAGACCCACCTGGGCCTGAAAAACAT GATCAAGGAGGTGGATGAGGACTTTGACAGCAAGCTGAGCTTCCGGGAGTTCCTCCTGATCTTCCGCAAGGCGGC GGCCGGGGAGCTTCAGGAGGACAGCGGGCTGTGCGTGCTGGCCCGCCTCTCTGAGATCGACGTCTCCAGTGAGGG TGTCAAGGGGGCCAAGAGCTTCTTTGAGGCCAAGGTCCAGGCCATCAACGTGTCCAGCCGCTTCGAGGAGGAGAT GGGAGGCCGAGCCTGAATCCTTGCCTGTCTGACGGGACCACTACTAAAAACCTAAAAATATCTGTGAATGGAG CAAGTTCAGGGGTCTTATGGAGGTGGCCCGGCCCCTCCCGGTCCCTTCCACTCTGCACGAGGCCGCCACACCGG ACATCCCTGTCCCCCAACCCGGGAACCCCTGCCCTCCTCCAGCAGGCCGCACCGCCCCTGGGGCCCCCTGCCAG CCCCTTCCCAGGCTGGGAGACAGCAGAAGAGATAGAATCAGGGCTGCCCCCACAGAGTGGGACCCAAGGGGCTAA TTGGAGGCACGAGGGGACCCCTCCCCAGGGCCTTTTCCTCCTCTGCGTCTTCCATCTACTGAAATGGGAGAGGGG GTGGGGAGCTTCTGTTCTGGTGAAGGGACCCGGGCAGGCCCCCAGCACCCCATGCTGACTTGGAGAACCCCAGAT GAGGGTCTCGGGGGTGGAGAGAGTGGGGGGGGGGAGAAGAATTGGCACCTTCCTAGGGAAGGAGACGAGCGCTT CGCCTTGATTCTCCGAGAAGCCTCCGAGAAGTGCTTTAAGTGTGTTTTGCATGCGCCAGGCGGTGGGCAGCGGGGG CCACCCCTGAGGAAGCATGGGGACCCTAACACCCTGGTGCCCTGCACCAGACAGGCCGTGGTCAGGCCCAGGCC GTGTCATAACGACGTCACTGCTTTTTAAACTCGATAACTCTTTATTTTAGTAAAATGCCCAGGAGTCCTGGAAGC TACGCGGACTTGCAGAGGTTTTATTTTTTGGCCTTAGAATCTGCAGAAATTAGGAGGCACCGAGCCCAGCGCAGC ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

66/6881 FIGURE 63

MATDELATKLSRRLQMEGEGGGETPEQPGLNGAAAAAAGAPDEAAEALGSADCELSAKLLRRADLNQGIGEPQSP SRRVFNPYTEFKEFSRKQIKDMEKMFKQYDAGRDGFIDLMELKLMMEKLGAPQTHLGLKNMIKEVDEDFDSKLSF REFLLIFRKAAAGELQEDSGLCVLARLSEIDVSSEGVKGAKSFFEAKVQAINVSSRFEEEIKAEQEERKKQAEEM KQRKAAFKELQSTFK

67/6881 FIGURE 64

GCCTCCCACTTGGTTGCTCGTACGCGGCTAGTGGGTCCTCAGTGGATGTAGGCTGGGCGCGCGATGTTCGACGG GACACCGGCGGAGAGCGACCTCGGGGTTAAGGGGTGGGGCTGACGTCAGGAGCCAAGATGGCGGCGGTGGTCGCC GCTGCAGCCACAGCTCCCCGTATCAAGAAATTTGCCATCTATCGATGGGACCCAGACAAGGCTGGAGACAAACCT CATATGCAGACTTATGAAGTTGACCTTAATAAATGTGGCCCCATGGTATTGGATGCTTTAATCAAGATTAAGAAT GAAGTTGACTCTACTTTGACCTTCCGAAGATCATGCAGAGAGGCATCTGTGGCTCTTGTGCAATGAACATCAAT GGAGGCAACACTCTAGCTTGCACCCGAAGGATTGACACCAACCTCAATAAGGTCTCAAAAAATCTACCCTCTTCCA CACATGTATGTGATAAAGGATCTTGTTCCCGATTTGAGCAACTTCTATGCACAGTACAAATCCATTGAGCCTTAT TTGAAGAAGAAGATGAATCTCAGGAAGGCAAGCAGCAGTATCTGCAGTCCATAGAAGAGCGTGAGAAACTGGAC GGGCTCTACGAGTGCATTCTCTGTGCCTGCTGTAGCACCAGCTGCCCCAGCTACTGGTGGAACGGAGACAAATAT CTGGGGCCTGCAGTTCTTATGCAGGCCTATCGCTGGATGATTGACTCCAGAGATGACTTCACAGAGGAGCGCCTG GCCAAGCTGCAGGACCCATTCTCTCTATACCGCTGCCACACCATCATGAACTGCACAAGGACCTGTCCTAAGGGT CTGAATCCAGGGAAAGCTATTGCAGAGATCAAGAAAATGATGGCAACCTATAAGGAGAAGAAAGCTTCAGTTTAA CTGTTTCCATGCTAAACATGATTTATAACCAGCTCAGAGCTGAACATAATTTATATCTAATTTGAGTTCCTTTAA AGATCTTGGTTTTCCATGAATACAGCATGTATAATAAAAATTTTAAGAAATAAAATGTTATTCTACTTTATTAACA AAAAA

68/6881 FIGURE 65

MAAVVALSLRRRLPATTLGGACLQASRGAQTAAATAPRIKKFAIYRWDPDKAGDKPHMQTYEVDLNKCGPMVLDA LIKIKNEVDSTLTFRRSCREGICGSCAMNINGGNTLACTRRIDTNLNKVSKIYPLPHMYVIKDLVPDLSNFYAQY KSIEPYLKKKDESQEGKQQYLQSIEEREKLDGLYECILCACCSTSCPSYWWNGDKYLGPAVLMQAYRWMIDSRDD FTEERLAKLQDPFSLYRCHTIMNCTRTCPKGLNPGKAIAEIKKMMATYKEKKASV

69/6881 FIGURE 66

GCATCCCACCAGCGGGTGTGTGGGCTGGCGTGGAGACCCTCGTGGACATTTATGGGTCAGTGCCTGAGGGCAC AGAAATGTTTGAGGTCTATGGGACGCCTGGCGTGGACATCTACATCTCTCCCAACATGGAGAGGGGCCCGGGAGCG $\tt TGCAGACACCAGGCGGTGGCGCTTTGACGCGACTTTGGAGATCATCGTGGTCATGAACTCCCCCAGCAATGACCT$ ${\tt CAACGACAGCCATGTTCAGATTTCCTACCACTCCAGCCATGAGCCTCTGCCCCTGGCCTATGCGGTGCTCTACCT}$ CACCTGTGTTGACATCTCTCTGGATTGCGACCTGAACTGTGAGGGAAGGCAGGAACATTTGTAGACAAGCG GCAGTGGGTCTGGGGGCCCAGTGGGTATGGCGGCATCTTGCTGGTGAACTGTGACCGTGATGATCCGAGCTGTGA GCAGGGCCCTGCAGCCCTCTTTGATGACCACAAACTTGTCCTCCATACCTCCAGCTATGATGCCAAACGGGCACA GGTCTTCCACATCTGCGGTCCTGAGGATGTGTGTGAGGCCTATAGGCATGTGCTGGGCCAAGATAAGGTGTCCTA TGAGGTACCCCGCTTGCATGGGGATGAGGAGCGCTTCTTCGTGGAAGGCCTGTCCTTCCCTGATGCCGGCTTCAC AGGACTCATCTCCTTCCATGTCACTCTGCTGGACGACTCCAACGAGGATTTCTCGGCATCCCCTATCTTCACTGA ${\tt CACTGTGGTGTTCCGAGTGGCACCCTGGATCATGACGCCCAGCACTCTGCCACCCCTAGAGGTGTATGTGTGCCG}$ TGTGAGGAACACGTGTTTTGTGGATGCGGTGGCAGAGCTGGCCAGGAAGGCCGGCTGCAAGCTGACCATCTG $\verb|CCCACAGGCCGAGAACCGCAACGACCGCTGGATCCAGGATGAGATGGAGCTGGGCTACGTTCAGGCGCCGCACAA| \\$ GACCCTCCCGGTGGTCTTTGACTCCCCAAGGAATGGGGAACTGCAGGATTTCCCTTACAAAAGAATCCTGGGTCC AGATTTTGGTTACGTGACTCGGGAACCACGCGACAGGTCTGTGAGTGGCCTGGACTCCTTTGGGAACCTGGAGGT AAGTGGCCGCAGGGTCACCCAGGTGGTGCGGGACTTCCTCCATGCCCAGAAGGTGCAGCCCCCCGTGGAGCTCTT TGTGGACTGGTTGGCCGTGGGCCATGTGGATGAGTTTCTGAGCTTTGTCCCTGCCCCCGATGGGAAGGGCTTCCG GATGCTCCTGGCCAGCCCTGGGGCCTGCTTCAAGCTCTTCCAGGAAAAGCAGAAGTGTGGCCACGGGAGGGCCCT CCTGTTCCAGGGGGTTGTTGATGATGAGCAGGTCAAGACCATCTCCATCAACCAGGTGCTCTCCAATAAAGACCT AGAGTGTGACATCATTGACATCCCACAGCTCTTCAAGACCGAGAGGAAAAAAGCAACGGCCTTCTTCCCTGACTT GGTGAACATGCTGGTGCTGGGGAAGCACCTGGGCATCCCCAAGCCCTTTGGGCCCATCATCAATGGCTGCTG CCTGGAGGAGAAGGTGCGGTCCCTGCTGGAGCCGCTGGGCCTCCACTGCACCTTCATTGATGACTTCACTCCATA GGTGCCCTGAGACAGCTCCCACCCACCATCCTGTCCCCCTGGGGCGGCATTGGCCCAGGTGGTGGAGACAGAGA AGCCTTTTCCCTGGAAGTGTCCATGCCTCACCTGCAACCCATGTGGTTCTCAGACTTGAATCTTCTCGGCCCCCC AAAAAGAAGGACCTCATTTCTTATAGCCTCTCCTGTGATTCAACACAACCCATGGAGATGTCCCCTTCTCACTCT GAAATCATCCATTTGGGGACAAATCCACATTGGGGTCTAGAAACATCCACGTATCTCATCAGCCATCTTGTCCTG TGCATCCTAACAGAGGAAGGATCCATGATTCTGCTTTGGTCCAATTGCTTCCTCTCTGCAGAGGAACAACCCTAA AACCAGACCACTCCACGCAGGACAGGCAGGAGAGATTCTTCCTAAAGCCTCCCCCATAAAAAGGGAGCTGTGGAT CCACTTAGATCAGGGCGGAACCATCTTTCACCCGGCCAAGCTCCTGCCCAGATGTTGACCCTCACCCAGCGTGAG CTGTCACATAGTAGGAGCTTCTAGATGCATGTGGAAGCAATGAGAGTTGTCCCTTAGCCTTATAAACTCCCCATG ATCTGACATGCAGAAATCCAGCCTTGTCCAGAATCCTCCTGGAATTTCTTGGAGACGAAAGTATCTGGGGGGATTG TTGGGTACTAGGGAGACTGGGTACAAGGGTGAAAAGTAGTTCCCATAATACACATGGTTGACTATGGTGATCCAC CTTGTGATGGTTAATATTAGGTGTCTGGAGAAGGTTGCTTCATTGGCCCTGGGACTTCTCTCTGCAGGAGGAGAG **AACGCTGCCTCTCCTCTGGATTGGTCTCAGGCTCTCTGTTGGCCTTTGGTCAGCGTTTCCACATCCTGCTCTGCT** GCAGGAGAGGGGGCTAAGGGGCTGGATCCACCAAGGCAGCTCACAGCGGGAAAACTCTGGGAATGAACCACTGAA TTCAGGGGATGGGGGGGGGGGGGTTCTCGAGGTGTGTGCCAGCTACACGTGTGTTCTGTATGGGTCCAGCTG CGTTTCCATCACTCGCTAATAAATCAACAGAAACAC

70/6881 FIGURE 67

CCGTGTGTGTGCTGGCACCTTGACTCAGCTTGACATCTGCAGCTCTGCCCCTGAGGACTGCACGTCCTTCAGCA TCAACGCCTCCCAGGGGTGGTCGTGGATATTGCCCACGGCCCTCCAGCCAAGAAGAAATCCACAGGTTCCTCCA CATGGCCCCTGGACCCTGGGGTAGAGGTGACCCTGACGATGAAAGTGGCCAGTGGTAGCACAGGCGACCAGAAGG TTCAGATTTCATACTACGGACCCAAGACTCCACCAGTCAAAGCTCTACTCTACCTCACCGGGGTGGAAATCTCCC TGTGCGCAGACATCACCCGCACCGGCAAAGTGAAGCCAACCAGAGCTGTGAAAGATCAGAGGACCTGGACCTGGG GCCCTTGTGGACAGGGTGCCATCCTGCTGGTGAACTGTGACAGAGACAATCTCGAATCTTCTGCCATGGACTGCG AGGATGATGAAGTGCTTGACAGCGAAGACCTGCAGGACATGTCGCTGATGACCCTGAGCACGAAGACCCCCAAGG ACTTCTTCACAAACCATACACTGGTGCTCCACGTGGCCAGGTCTGAGATGGACAAAGTGAGGGTGTTTCAGGCCA CACGGGGCAAACTGTCCTCCAAGTGCAGCGTAGTCTTGGGTCCCAAGTGGCCCTCTCACTACCTGATGGTCCCCG GTGGAAAGCACAACATGGACTTCTACGTGGAGGCCCTCGCTTTCCCGGACACCGACTTCCCGGGGCTCATTACCC TCACCATCTCCCTGCTGGACACGTTCAACCTGGAGCTCCCCGAGGCTGTGGTGTTCCAAGACAGCGTGGTCTTCC GCGTGCCCCTGGATCATGACCCCCAACACCCAGCCCCGCAGGAGGTGTACGCGTGCAGTATTTTTGAAAATG AGGACTTCCTGAAGTCAGTGACTACTCTGGCCATGAAAGCCAAGTGCAAGCTGACCATCTGCCCTGAGGAGGAGA ACATGGATGACCAGTGGATGCAGGATGAAATGGAGATCGGCTACATCCAAGCCCCACACAAAACGCTGCCCGTGG TCTTCGACTCTCCAAGGAACAGAGGCCTGAAGGAGTTTCCCATCAAACGCGTGATGGGTCCAGATTTTGGCTATG TAACTCGAGGGCCCCAAACAGGGGGTATCAGTGGACTGGACTCCTTTGGGAACCTGGAAGTGAGCCCCCCAGTCA CAGTCAGGGGCAAGGAATACCCGCTGGGCAGGATTCTCTTCGGGGACAGCTGTTATCCCAGCAATGACAGCCGGC AGATGCACCAGGCCCTGCAGGACTTCCTCAGTGCCCAGCAGGTGCAGGCCCCTGTGAAGCTCTATTCTGACTGGC TGTCCGTGGGCCACGTGGACGAGTTCCTGAGCTTTGTGCCAGCACCCGACAGGAAGGGCTTCCGGCTGCTCCTGG CCAGCCCCAGGTCCTGCTACAAACTGTTCCAGGAGCAGCAGAATGAGGGCCACGGGGAGGCCCTGCTGTTCGAAG GGATCAAGAAAAAAAACAGCAGAAAATAAAGAACATTCTGTCAAACAAGACATTGAGAGAACATAATTCATTTG TGGAGAGATGCATCGACTGGAACCGCGAGCTGCTGAAGCGGGAGCTGGCCTGGCCGAGAGTGACATCATTGACA TCCCGCAGCTCTTCAAGCTCAAAGAGTTCTCTAAGGCGGAAGCTTTTTTCCCCAACATGGTGAACATGCTGGTGC GTTCCCTGCTGGAGCCACTGGGCCTCCAGTGCACCTTCATCAACGACTTCTTCACCTACCACATCAGGCATGGGG AGGTGCACTGCGGCACCAACGTGCGCAGAAAGCCCTTCTCCTTCAAGTGGTGGAACATGGTGCCCTGAGCCCATC ACTCTGAAGATCCCAACATGGTCCTAGCACTGCACACTCAGTTCTGCTCTAAGAAGCTGCAATAAAGTTTTTTTA **AGTCACTTTGTAC**

71/6881 FIGURE 68A

CCTCCGATCCGTCTTTAGTTGCTTCTCTTCTTTTTTCTCTCCGGTTTCTCATCACCACCAGCCGCGACCA TGCCCAGGAAGAAGGCGGCGGCGGCGGCCTGGGAGGAGCCGAGCTCGGGCAACGGCACTGCCCGCGCCCGGGCCCA GGAAACGCGGCGGCCGGCGGGCAGGAAGCGCGAGCGCCCGAGCGCTGCAGTAGCAGCAGCGGCGGCGGCAGCA GCAAGGCGGCGGCGCGCGTGGTCATCACCGAACCCGAGCACCAAGGAGCGCGTCAAACTTGAAGGGTCAA AGTGCAAAGGGCAGCTTTTGATTTTTTGGGGCAACCAACTGGGACTTGATTGGTCGAAAAGAAGTGCCTAAACAGC AAGCTGCTTACCGCAATCTCGGTCAGAATTTGTGGGGGCCCCACAGATATGGGTGCCTGGCGGGGGTCCGGGTGC GGACAGTGGTCTCGGGCTCGTGTGCTGCACACAGCCTCCTCATCACCACGGAAGGGAAGCTGTGGAGCTGGGGTC GAAATGAGAAGGGGCAGCTGGGACATGGTGACACCAAGAGAGTAGAAGCCCCTAGACTCATCGAGGGTCTTAGCC ACGAAGTGATTGTGTCTGCAGCATGTGGGCGGAACCACCTTGGCCTTGACGGAAACGGGCTCCGTGTTTGCGT ACAACGGCCAGCCAATTACCAAAATGGCCTGTGGGGCTGAATTCAGTATGATAATGGACTGCAAAGGAAACCTCT ATTCCTTTGGGTGCCCTGAATATGGTCAGCTGGGACACAACTCAGATGGGAAGTTCATCGCCCGGGCACAGCGGA TAGAGTACGACTGTGAACTAGTTCCCCGGCGAGTGGCCATCTTCATTGAGAAGACGAAAGATGGACAGATTCTGC TCTTCTCCTGGGGCTTTGGTGGCTATGGCCGGCTGGGCCACGCAGAGCAGAAGGATGAGATGGTCCCCCGCCTGG TGAAGCTGTTTGACTTCCCTGGGCGTGGGGCTTCCCAGATCTATGCTGGTTACACCTGCTCCTTTGCTGTCAGTG AAGTGGGTGGTCTGTTTTTCTGGGGGGCCACCAACACCTCCCGTGAATCTACCATGTACCCAAAAGCAGTGCAGG ACCTCTGCGGCTGGAGAATTCGGAGCCTGGCTTGTGGGAAGAGCAGCATCATTGTGGCCGCCGATGAGAGCACCA TCAGCTGGGGTCCGTCACCGACCTTTGGGGAACTGGGCTACGGGGACCACAAGCCCAAGTCTTCCACTGCAGCCC AGGAGGTAAAGACTCTGGATGGCATTTTCTCAGAGCAGGTCGCCATGGGCTACTCACACTCCTTGGTGATAGCAA GAGATGAAAGTGAGACTGAGAAAGAGAAGATCAAGAAACTGCCAGAATACAACCCCCGAACCCTCTGATGCTCCC GGAGACTCCTCCGACTCCACACCTCTCGCGGCAGCTGTCATTTCCATGTGCACTGGGACGGGAAGTCAAACGAGG AATTTAAAAAAGCAAAAGTTGACCGAAGGTGCATTTTTGTTTAGACTCCCTGAGGTTCCGTTTTACACATGATCC TTCTTTCTTCCTTTCCTGAATACACTCCCCAAAACACCCCTTTCCAGTTACAATTAGCATCGTGATCCAAGCAGA TGCCACATGGAAGAGGAATCGCCATTTACTCAGAAAAAATGTCCCTTACAGGAACCGGCAGCAGCTAGGCAGTCA CCGGCCCGCCTCCATCCAAAATCACGCTCGCGTGCTTCGGAAGCATCCGGGTCACTCCTTCTCCCGCTTTTTCTTG CAGATGGGCCTAGGCCGGTGTCGGTTCTGTTTCTCCCCTTGGCTGCCTGTACGCCCACAGCCTTCTGGCTGCGAC ATTATAGAATCGGCCGTGTCCCCCCTGGTGGGGGATTGGGGATCTGTGTTTAGCCATTTATATCTACTTTAGCTG TTAAAGAGGTCCAAATGAAAATCAGGTGATTGTGGAACCATGGGGACTTGGGGGTGGGGCAGAGGTGGGAACATT TGTATCAGTTGAGTCAGCTTGGTGGCTCCCTGTGGAGCCAGGGCTGAGCCTTGTCACGCGCACCCGCCAATTAAG AGATGGACCAGCCAGCAGTCAAGTGCATTCTCCAGTCCTTGCAAGAAGGATCAGCCCTTTCTGTGCCAGCCTCGA TCGGGGTACCGTTCTGCTGACCCAGCTCCCTTTAGTCACGTTTGCTTGGCTCTGGTACCAAATAGTTGGGATTAC CGAAGAGTCCCCTTCCTTGCGTGTCAGCACGGATGCTGTGACTGCCACCTGCGTCCTCGTCAAGTGCCCGAGCTC GCCGCCGTGTGTGCCGCTGAGTGAGTTATGAGGTGCCTTTCCCGGAACCCTCCTCTCGCCTGGACCCAAGAGA GGCGACAGCTGTGGCTGGGGCTCTTGGTTTCCAGAGGGTCTGGACTGGTTTGGGTGCTTTAAAATAGATATTTAG TTCAGTGGTGCTTATGGGGGAGATGGGACTAGAACTTAAGTGTGAGACTTGGGTGGATGGGAAAGTTAAATATTG GTCTCTTCAAGTTTTTTTTTTTTTTTTTGCTTTGTTACCACTTGTCACTGTCTCCATGTTAAAATGCCAAAAATGAT GTAGTTGTTGTTGCTTTTTTCCCTATTTTCCACCCCAGTCGCTCCTTACCGTGACTCCTTGCACGCCATG TAGCAGTGTCTGTCCTGCCAGTCCCAAGGCCCTGTGGGAGGAGACTGGCCTGCATCTCTCTAAGACTTAGTCTGA CGCCACGCGCATCTCTTGTTCTGTTCTAATCAGTAGTCCAGGGGAGAAGCTTCTGCTACTTCAGAGCTTTGCTA AACTAACCTAATTTGTCCAAATCACCCCAAAACCACCATCTCTGACGTAAGCTTCCATGCGACAGCCTGATCCGT TTCCCTGGACAGGTCTCTTTCCTGGAATGCAGCCCAGGCACCTGTGCTCCTGGCACCCTTGAGGTCTCTTTTTG AGCCGTGGTCACCGAGAGGGTTGAGGACGCAGCACCCGAGGTCCCAGCCTTTGCAGGAGCCTCCCTGGGCTTAGC

72/6881 FIGURE 68B

TGGACTTAGATCTTCGGTGGCCTCATGTAAACGTGGCAGCCCAGCCTCTTCTAGAACCCTAGCCCAGGGACTGGAG
CAGGAAAGGGACCTTCAAAGTGAAGACTGCCTTGTCCCGCAGCTCCTTCTGGCTTAGATTGAAACATGGGCTTCC
TAATGGGTTAAATCCTTTAAAACAAGGAGTTGTGGGGGAAGGGTGTCGTGCACTCCTAGAGAAAAGGTACACAGTT
GCCCGGTTGGGAATGTGCTTGGCGCTGACCCTGCGGGCATCTGACTGGTCTTCCAGCTCAGGAAAAAGAATTTGA
AAGAGGCTTAGCGTGAAGGGGAATCAAAGAGGAGGTTGTGATTTGGTCGAAGGTGCCTGGTTTAGTGCTGTAATT
GTCTTATTATTTTTTTTATATATATATATTTCTTGGAGTAAACATTTTAAAT

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73/6881 FIGURE 69

74/6881 FIGURE 70

MSDQQLDCALDLMRRLPPQQIEKNLSDLIDLVPSLCEDLLSSVDQPLKIARDKVVGKDYLLCDYNRDGDSYRSPW SNKYDPPLEDGAMPSARLRKLEVEANNAFDQYRDLYFEGGVSSVYLWDLDHGFAGVILIKKAGDGSKKIKGCWDS IHVVEVQEKSSGRTAHYKLTSTVMLWLQTNKSGSGTMNLGGSLTRQMEKDETVSDCSPHIANIGRLVEDMENKIR STLNEIYFGKTKDIVNGLRSVQTFADKSKQEALKNDLVEALKRKQQC

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75/6881 FIGURE 71

 $\verb|CCGCCAGCGCCGCGCCGTGCGCCCTTTCTGGAGCGCGGCCACACCGAACTGGACACGGCCTTCATGTACAGCG|\\$ ${\tt ACGGCCAGTCCGAGACCATCCTGGGCGGCCTGGGGCTGGGCGGTGGCGACTGCAGAGTGAAAATTGCCA}$ CCAAGGCCAACCCTTGGGATGGAAAATCACTAAAGCCTGACAGTGTCCGGTCCCAGCTGGAGACGTCATTGAAGA GGCTGCAGTGTCCCCAAGTGGACCTCTTCTACCTACACACCCTGACCACGGCACCCCGGTGGAAGAGACGCTGC ${\tt ATGCCTGCCAGCGGCTGCACCAGGAGGGCAAGTTCGTGGAGCTTGGCCTCTCCAACTATGCTAGCTGGGAAGTGG}$ $\tt CCGAGATCTGTACCCTCTGCAAGAGCAATGGCTGGATCCTGCCCACTGTGTACCAGGGCATGTACAACGCCACCA$ $\tt CCCGGCAGGTGGAAACGGAGCTCTTCCCCTGCCTCAGGCACTTTGGACTGAGGTTCTATGCCTACAACCCTCTGG$ $\tt CTGGGGGCCTGCTGACTGCAAGTACAAGTATGAGGACAAGGACGGGAAACAGCCTGTGGGCCGCTTCTTTGGGA$ ATAGCTGGGCTGAGACCTACAGGAATCGCTTCTGGAAGGAGCACCACTTCGAGGCCATTGCGTTGGTGGAGAAGG $\tt CCCTGCAGGCCGCATATGGCGCCCCCAGTGTGACCTCGGCTGCCCTCCGGTGGATGTACCACCACTCAC$ ${\tt CAACAGAGGCAGGCCCTGGAGCCGGCTGTCGTGGATGCCTTTAATCAAGCCTGGCATTTGGTTGCTCACGAAT}$ $\tt GTCCCAACTACTTCCGCTAGGCCCATCATGGCTCAGGCTGCCCAAGGCTTTTCTGTCACCTCTTTTGTTCTCTCA$ ${\tt CACTGACCAGTCTTGGCCTTAAGCTGACTTAGAAGGGTTTTTCTGAATTGTCTAGATCCATGCATTATTTTTCTA}$ AATAAAGCAGGCACTTGACCTGGCTGTAGCCTAGGTCTTGAGTGAACCCCAAAAAA

76/6881 FIGURE 72

MSRPPPPRVASVLGTMEMGRRMDAPASAAAVRAFLERGHTELDTAFMYSDGQSETILGGLGLGGGDCRVKIAT KANPWDGKSLKPDSVRSQLETSLKRLQCPQVDLFYLHTPDHGTPVEETLHACQRLHQEGKFVELGLSNYASWEVA EICTLCKSNGWILPTVYQGMYNATTRQVETELFPCLRHFGLRFYAYNPLAGGLLTGKYKYEDKDGKQPVGRFFGN SWAETYRNRFWKEHHFEAIALVEKALQAAYGASAPSVTSAALRWMYHHSQLQGAHGDAVILGMSSLEQLEQNLAA TEEGPLEPAVVDAFNQAWHLVAHECPNYFR

77/6881 FIGURE 73

 ${\tt ACCGTCTTCCGCCGCACGTGGATTCAGCGCG} \underline{{\tt ATG}} {\tt CCCAAATCCAAGCGCGACAAGAAAGTCTCCTTAACCAAAAC}$ TGCCAAGAAAGGCTTGGAATTGAAACAAAACCTGATAGAAGAGCTTCGGAAATGTGTGGACACCTACAAGTACCT TTTCATCTTCTCTGTGGCCAACATGAGGAACAGCAAGCTGAAGGACATCCGGAACGCCTGGAAGCACAGCCGGAT GTTCTTTGGCAAAAACAAGGTGATGATGGTGGCCTTGGGTCGGAGCCCATCTGATGAATACAAAGACAACCTGCA CCAGGTCAGCAAAAGGTTGAGGGGTGAGGTGGGTCTCCTGTTCACCAACCGCACAAAGGAAGAGGTGAATGAGTG GTTCACGAAATACACAGAAATGGACTACGCCCGAGCTGGTAACAAAGCAGCTTTCACTGTGAGCCTGGATCCAGG GCCCCTGGAGCAGTTCCCCCACTCCATGGAGCCACAGCTCAGGCAGCTGGGCCTGCCCACCGCCCTCAAGAGAGG TGTGGTGACTCTGCTGTCTGACTACGAGGTGTGCAAGGAGGGCGATGTGCTGACCCCAGAGCAGGCTCGCGTCCT GAAGCTTTTTGGGTATGAGATGGCTGAATTCAAGGTGACCATCAAATACATGTGGGATTCACAGTCGGGAAGGTT ${\tt CCAGCAGATGGGAGACGACTTGCCAGAGAGGCGCATCTGAGTCCACAGAAGAGTCAGACTCAGAAGATGATGAC{\tt TG}}$ <u>A</u>AAGGGACTCGGGACTGAAGGTCTCCTGGAAGCTTCTGGGTCTCACTGGACCATCAGGACTGCTGCCGCCCCTCT GGAGAGAGCAGCTTTTTATTTGTCTGTAGACAGGGAACATGATGGGCACTGACCTCCTGTAAAGAATAAAACTGT GGGCCGGGCGCGGTGGCTCACGCCTGGAATCCCAGCACTTTGGGAAGCCGAGGTGGGCAGATCATAAGGTCAGGA TGGCATGTGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGAGGTGGAGGTTG CCGTGAGTTGAGATTGGACCACTGCTCTCCAGCCTGGGCAACAGAGTAAAACTCTGTCCC

78/6881 FIGURE 74

MPKSKRDKKVSLTKTAKKGLELKQNLIEELRKCVDTYKYLFIFSVANMRNSKLKDIRNAWKHSRMFFGKNKVMMV ALGRSPSDEYKDNLHQVSKRLRGEVGLLFTNRTKEEVNEWFTKYTEMDYARAGNKAAFTVSLDPGPLEQFPHSME PQLRQLGLPTALKRGVVTLLSDYEVCKEGDVLTPEQARVLKLFGYEMAEFKVTIKYMWDSQSGRFQQMGDDLPES ASESTEESDSEDDD

79/6881 FIGURE 75

GAGTCGGGGGTCACCAGGCCTATCCTTGGCGCCACAGTCGGCCACCGGGGCTCGCCGCCGTCATGGAGAGCGGAG GGCGGCCCTCGCTGTGCCAGTTCATCCTCCTGGGCACCACCTCTGTGGTCACCGCCGCCCTGTACTCCGTGTACC GGCAGAAGGCCCGGGTCTCCCAAGAGCTCAAGGGAGCTAAAAAAGTTCATTTGGGTGAAGATTTAAAGAGTATTC TTTCAGAAGCTCCAGGAAAATGCGTGCCTTATGCTGTTATAGAAGGAGCTGTGCGGTCTGTTAAAGAAACGCTTA ACAGCCAGTTTGTGGAAAACTGCAAGGGGGTAATTCAGCGGCTGACACTTCAGGAGCACAAGATGGTGTGGAATC CCCACGAGGATGGCGTGGATGTGCCGAGTGCTGAAGCCCCTGGACTCAGTGGATCTGGGTCTAGAGACTG TGTATGAGAAGTTCCACCCTCGATTCAGTCCTTCACCGATGTCATCGGCCACTACATCAGCGGTGAGCGGCCCA AAGGCATCCAAGAGACCGAGGAGATGCTGAAGGTGGGGGCCACCCTCACAGGGGTTGGCGAACTGGTCCTGGACA ACAACTCTGTCCGCCTGCAGCCGCCCAAACAAGGCATGCAGTACTATCTAAGCAGCCAGGACTTCGACAGCCTGC TGCAGAGGCAGGAGTCGAGCTCAGGCTCTGGAAGGTGCTGGCGCTGGTTTTTGGCTTTGCCACATGTGCCACCC TCTTCTTCATTCTCCGGAAGCAGTATCTGCAGCGGCAGGAGCGCCTGCACCAAGCAGATGCAGGAGGAGTTCC AGGAGCATGAGGCCAGCTGCTGAGCCGAGCCAAGCCTGAGGACAGGGAGAGTCTGAAGAGCGCCTGTGTAGTGT GTCTGAGCAGCTTCAAGTCCTGCGTCTTTCTGGAGTGTGGGCACGTTTGTTCCTGCACCGAGTGCTACCGCGCCCT TGCCAGAGCCCAAGAAGTGCCCTATCTGCAGACAGGCGATCACCCGGGTGATACCCCTGTACAACAGCTAATAGT TTGGAAGCCGCACAGCTTGACCTGGAAGCACCCCTGCCCCCTTTTCAGGGATTTTTATCTCGAGGCCTTTGGAGG CTCCAATGGCAGGATGCTGCCTTTCCCACCTGAGAGGGGACCCTGTCCATGTGCAGCCTCATCAGAGCCTCACCC $\tt TGGGAGGATGCCGTGGCGTCTCCCCAGGAGCCAGATCAGTGCGAGTGTGACATGAAAATGCCTCATCACTTAAG$ GACTTGGTGGAGGACTCAGAGGGGGGGAAAGGCTGGGCCCCGAGTACAACGGATGCCTTGGGTGCTGCCTCCGAA CAGGTCAACTTGTGTTCCCTTCACCTGCTTGCCTCCTTAACGCCTGCACGTGTGTAGAGGACAAAAGA AAGTGAAGTCAGCACATCCGCTTCTGCCCAGATGGTCGGGGCCCCGGGCAACAGATTGAAGAGAGATCATGTGAA GGGCAGTTGGTCAGGCAGGCCTCCTGGTTTCGCCACTGGCCCTGATTTGAACTCCTGCCACTTGGGAGAGCTCGG GGTGGTCCCTGGTTTTCCCTCCTGGAGAATGAGGCGCAGAGGCCTCGCCTCCTGAAGGACGCAGTGTGGATGCCA $\verb|CTGGCCTAGTGTCCTGGCCTCACAGCTTCCTTGCAAGGCTGTCACAAGGAAAAGCAGCCGGCTGGCACCCTGAGC| \\$ ATATGCCCTCTTGGGGCTCCCTCATCCAGCCCGTCGCAGCTTTGACATCTTGGTGTACTCATGTCGCTTCTCCTT GTGTTACCCCTCCCAGTATTACCATTTGCCCCTCACCTGCCCTTGGTGAGCCTTTTAGTGCAAGACAGATGGGG CTGTTTTCCCCCACCTCTGAGTAGTTGGAGGTCACATACACAGCTCTTTTTTTATTGCCCTTTTCTGCCTCTGAA TGTTCATCTCTCGTCCTCCTTTGTGCAGGCGAGGAAGGGGTGCCCTCAGGGGCCGACACTAGTATGATGCAGTGT CCAGTGTGAACAGCAGAAATTAAACATGTTGCAACC

80/6881 FIGURE 76A

AGGCCGTGCGGGACGCGGGCCGAGGCCGAACGCAGAGGTTGATTCTTCACCACACTGAAACCATTAGGA AAAATCCTTGTGGTTAACAGCAGAGGCTTCAGAGTGTAACCTGTACTCGGGCCTAGAAATTATTTAAAATGGCGA CTGATACGTCTCAAGGTGAACTCGTCCATCCTAAGGCACTCCCACTTATAGTAGGAGCTCAGCTGATCCACGCGG ACAAGTTAGGTGAGAAGGTAGAAGATAGCACCATGCCGATTCGTCGAACTGTGAATTCTACCCGGGAAACTCCTC CCAAAAGCAAGCTTGCTGAAGGGAAGAAAAAGCCAGAACCAGACATAAGTTCAGAGGAATCTGTCTCCACTG TAGAAGAACAAGAGAATGAAACTCCACCTGCTACTTCGAGTGAGGCAGAGCAGCCAAAGGGGGAACCTGAGAATG AAGAGAAGGAAGAAATAAGTCTTCTGAGGAAACCAAAAAGGATGAGAAAGATCAGTCTAAAGAAAAGGAGAAGA TGGCTTCTTCCCCACGTCCCAAGATGGATGCAATCTTAACTGAGGCCATTAAGGCATGCTTCCAGAAGAGTGGTG CATCAGTGGTTGCTATTCGAAAATACATCATCCATAAGTATCCTTCTCTGGAGCTGGAGAGAAGGGGTTATCTCC TTAAACAAGCACTGAAAAGAGAATTAAATAGAGGAGTCATCAAACAGGTTAAAGGAAAAGGTGCTTCTGGAAGTT CAGAACCACAAGTAAAATTGGAGGATGTCCTCCCACTGGCCTTTACTCGCCTTTGTGAACCTAAAGAAGCTTCCT ACAGTCTCATCAGGAAATATGTGTCTCAGTATTATCCTAAGCTTAGAGTGGACATCAGGCCTCAGCTGTTGAAGA ACGCTCTGCAGAGAGCAGTAGAGAGGGGCCAGTTAGAACAGATAACTGGCAAAGGTGCTTCGGGGACATTCCAGC TGAAGAAATCAGGGGAGAAACCCCTGCTTGGTGGAAGCCTGATGGAATATGCAATCTTGTCTGCCATTGCTGCCA TGAATGAGCCGAAGACCTGCTCTACCACTGCTCTGAAGAAGTATGTCCTAGAGAATCACCCAGGAACCAATTCTA CAGATGATTCTAGAGATGAGGATGAAGATGAAGATGAGTCATCAGAAGAAGACTCTGAGGATGAAGAGCCGCCAC CTAAGAGAAGGTTGCAGAAGAAAACCCCAGCCAAGTCCCCAGGGAAGGCCGCATCTGTGAAGCAGAGAGGGTCCA AACCTGCACCTAAAGTCTCAGCTGCCCAGCGGGGAAAGCTAGGCCCTTGCCTAAGAAAGCACCTCCTAAGGCCA AAACGCCTGCCAAGAAGACCAGACCCTCATCCACAGTCATCAAGAAACCTAGTGGTGGCTCCTCAAAGAAGCCTG CAACCAGTGCAAGAAAGGAAGTAAAATTGCCGGGCAAGGGCAAATCCACCATGAAGAAGTCTTTCAGAGTGAAAA AGTAAATTTTATAGGAAAAAAGGGTATCATGATGAAATTCAAAATCTTATTTTCTAAGGTCAGTGTGCATTTGTT TCCTGGACTTTCCTAAACTATGTAATGTATACTTGTCCTTTTTCTCTGCCTCCCCAACCCCCTGTTGTTTTTAT GGTCAGCTTTGCCTTTTTTTTTTCTTCCAATTTTATCTAAACAGTTGCAGAGATTTTTATATTTGTAGAAAGCAT AACTGTAAACACAGAGACAGCTTTGGGAATAAGCCAAAAACAGGGTGATCTCATTAGATTTTGAAGATATATGAC TCCTTTGGGCTACATTTCATATTGATCAATTTCTAGGTATTTTTCACTGGCCCAAAGTATTGCATTCCCTTAACA GCAAGCACAAGTTCTCTATATCACTTGTTTTTTTGTTGTTGTTGTTGTTGTCGTCGTTGTTTTTGAGACGGAGTCTT GCTCAGGTGCCCCGGAGTGCAGTGGTGCAATCTCAGCTCACCTGCAACCTCCACCTCCTGGGTTCAAGCAATTCTC CAAAGTGCTGGGATTACAGGAGTGAGCCACTGTGCCTGGCCTATCCCACTTGGTTTTTGACTGAAGGGGAAGTGT TATTATTATTTTTTGAGACAGAGTCTCGCTCTGTCGCCCAGTGTGGAGTGCAGTGGTGATCTTGGCTCACT GCAAACTCCGCCTCCCAGGTTCAAGCGATTCTCCCACCTCAGCCTCCTGAGTTGGGTCCTACAGGCGCACACGAC CACGCCCAGCTAATTTTTTGTATTTTTAGTAGAGTTGGGGTTTCACCATGTTAGCCAGGATGGTCTCGATCTCCT GACCTCGTGATCCACTCACCTCAGCCTCCCAAAATCCTGGGGTTACAGATGTGAGCTACCACTCACGGCCCAAAT CTTCTTGATCATATGTTTAAATATTTTTTAATATTTGGAGCATGAGTTGTCACTTCTTGTTTGCCTTTTTTAT AAGGAAATGTTGGAGAGTTACATCATTGCTAATGTAGAAATGTTAAGTGGAAAAATATACAGTTTGGTAAAATAA CTTCCTTTTTGAGATATTAAAAAAAAAAAAGAAAAGGAAAAAAGTAAATGAAGCCCAACTACCTAACCCTTTCTTA

81/6881 FIGURE 76B

GGCGCCGAGTAGCCGGGCCGGGCCGGAGCGCGGCGGCGGCGGAGGCAGCTGCGCCCGCGCCTCCTGCCCTCCCA GGCCCGCGCCCCGGGCCCCGGCGATGGTGACACATGCGGCGGCGCGCCCAGCGGCAGGACCATGGT TGAGCGCCCAGCAAGTTCGTGCTGGTGGTGGCGGGCCCGGTGTGCTTCATGCTCATCTTGTACCAGTACGCGGG CGTGATCGTCTTCCTGCACATCCAGAAGACGGGCGCCACCTTCGGCCGCCACCTCGTGCAGAACGTACGCCT CGAGGTGCCGTGCGACTGCCGGCCGGCCAGAAGAAGTGCACCTGCTACCGGCCCAACCGCCGAGACTTGGCT CTTCTCCCGCTTCTCCACCGGCTGCAGCTGCACCGCCGACTGGACCGAGCTCACCAACTGCGTGCCCGG CGTGTCCCGCTACCTGAGCGAGTGGCGGCATGTGCAGAGGGGTGCCACGTGGAAGACGTCGTTGCACATGTGTGA TGGGCGCACGCCCACGCCTGAGGGGCTGCCGCCCTGCTACGAGGGCACGGACTGGTCGGGCTGCACGCTACAGGA GTTCATGGACTGCCCGTACAACCTGGCCAACAACCGCCAGGTGCGCATGCTGGCCGACCTGAGCCTGGTGGGCTG CTACAACCTGTCCTTCATCCCCGAGGGCAAGCGGGCCCAGCTGCTGCTCGAGAGCGCCCAAGAAGAACCTGCGGGG CATGGCCTTCTTCGGCCTGACCGAGTTCCAGCGCAAGACGCAGTACCTGTTCGAGCGGACGTTCAACCTCAAGTT CGAGGAGCTCAACGACCTGGACATGCAGCTGTATGACTACGCCAAGGACCTCTTCCAGCAGCACTACCAGTACAA GCCGCGGGAGGACGCCGACGAGCCGGCCGCCGCCCACCGAGGACTACATGAGCCACATCATTGAGAAGTGGTA TAGTGGGGCTGGGCAGGGATGGGGCTTGAGAAATCAACAGGTGCAGCCCAGTGGGTCAGAGGAAAGCGTGCTCGA AGGATGCCATGGTCAGGGCAGAGCCTCCAGAGCAGGTGTTGTGCCTGGAGCTGCTCTCCTGGCCTCCTTGGATTT ATCGCAAAAACTGAAGGTTTGCGTGAGAGACGAGGACAGCGGAAAGTGGACCTGCCAGGCCGGGAGTGTCCCT CACCAACTATGCACACACCACTCGCTCTTAGCTCCTCTGTCCGGGCTACTAGGAGTGAGACCAGCTTCTGGCAAC TGCCCCAGCTCCAGGCCATCCCATAGCTCCTCTTCTGGCTGCCCCCAATGCCCCGAGGCCTGGGGAGCCCCC AGCTCACCCATCTGTAGCTCCCTCAAAGTCAGGGCCCACCCCATCTGAGGCAGAGAGACTCGAGTCCAGCCCCC AGGAAGCCTGCTCCCCTCTCTGGCCCATGGTCCTGCTTCATGCTTTGGGTCAGGAGGCCAAAGCTGATGTTCAGG CCCCACCCACTCCCTACAGTCCTCAGACC

83/6881 FIGURE 78

AGAAACTCCCGGTGTGGCAGCTGAGATGGCCCAGGAAAGAACTATATTACCTTCAAAAAAGAGAGGTACATGCGAT GTTTGAGGTGGCATGAAGCTCAGTGGTGTTATATTGGAATGAGTGACCATCCTGGAGCCTTCCTGAAAGAG CAGGGATAAAGCAGGTCTTGGGGTGCACCATGATTTCACCATTCTTAGTACTGGCCATTGGCACCTGCCTTACTA ACTCCTTAGTGCCAGAGAAAGAGAAAGACCCCAAGTACTGGCGAGACCAAGCGCAAGAGACACTGAAATATGCCC TGGAGCTTCAGAAGCTCAACACCAACGTGGCTAAGAATGTCATCATGTTCCTGGGAGATGGGATGGGTGTCTCCA CAGTGACGGCTGCCCGCATCCTCAAGGGTCAGCTCCACCACAACCCTGGGGAGGAGACCAGGCTGGAGATGGACA AGTTCCCCTTCGTGGCCCTCTCCAAGACGTACAACACCAATGCCCAGGTCCCTGACAGTGCCGGCACCGCCACCG $\verb|CCTACCTGTGGGGTGAAGGCCAATGAGGGCACCGTGGGGGTAAGCGCAGCCACTGAGCGTTCCCGGTGCAACA| \\$ CCACCCAGGGGAACGAGGTCACCTCCATCCTGCGCTGGGCCAAGGACGCTGGGAAATCTGTGGGCATTGTGACCA CCACGAGAGTGAACCATGCCACCCCAGCGCCGCCTACGCCCACTCGGCTGACCGGGACTGGTACTCAGACAACG AGATGCCCCTGAGGCCTTGAGCCAGGGCTGTAAGGACATCGCCTACCAGCTCATGCATAACATCAGGGACATTG ACGTGATCATGGGGGGGGGCCGGAAATACATGTACCCCAAGAATAAAACTGATGTGGAGTATGAGAGTGACGAGA AAGCCAGGGGCACGAGGCTGGACGCCTGGACCCTGGAAGAGCTTCAAACCGAGATACAAGCACT $\verb|CCCACTTCATCTGGAACCGCACGGAACTCCTGACCCTTGACCCCCACAATGTGGACTACCTATTGGGTCTCTTCG|\\$ AGCCAGGGGACATGCAGTACGAGCTGAACAGGAACAACGTGACGGACCCGTCACTCTCCGAGATGGTGGTGGTGG $\verb|CCATCCAGATCCTGCGGAAGAACCCCAAAGGCTTCTTCTTGCTGGTGGAAGGAGGCAGAATTGACCACGGGCACC| \\$ GTGGCAACTCTATCTTTGGTCTGGCCCCCATGCTGAGTGACACAGACAAGAAGCCCTTCACTGCCATCCTGTATG ${\tt GCAATGGGCCTGGCTACAAGGTGGTGGGCGGTGAACGAGAATGTCTCCATGGTGGACTATGCTCACAACAACT}$ ACCAGGCGCAGTCTGCTGTGCCCCTGCGCCACGAGACCCACGGGGGGGAGGACGTGGCCGTCTTCTCCAAGGGCC $\verb|CCATGGCGCACCTGCTGCACGGCGTCCACGAGCAGAACTACGTCCCCCACGTGATGGCGTATGCAGCCTGCATCG|\\$ $\verb|CCCTCTACCCCCTGAGCGTCCTGTTCTGAGGGCCCAGGGCCCGGGCACCCACAAGCCCGTGACAGATGCCAACTT| \\$ CCCACACGGCAGCCCCCCCCCAAGGGGCAGGAGGTGGGGGCCTCCTCAGCCTCTGCAACTGCAAGAAAGGGGA CCCAAGAACCAAAGTCTGCCGCCCACCTCGCTCCCCTCTGGAATCTTCCCCAAGGGCCAAACCCACTTCTGGCC TGCAGACATTCTCAAAGCCTCTTATTTTTCTAGCGAACGTATTTCTCCAGACCCAGAGGCCCTGAAGCCTCCGTG GAACATTCTGGATCTGACCCTCCCAGTCTCATCTCCTGACCCTCCCACTCCCATCTCCTTACCTCTGGAACCCCC CAGGCCCTACAATGCTCATGTCCCTGTCCCCAGGCCCAGCCCTCCTTCAGGGGAGTTGAGGTCTTTCTCCTCAGG ACAAGGCCTTGCTCACTCACTCCAAGACCACCAGGGTCCCAGGAAGCCGGTGCCTGGGTGGCCATCCTACC CACAAAACATTTAAATAAAACTTTCCAAATATTTCCGAGG

84/6881 FIGURE 79

85/6881 FIGURE 80

DRTQRERGEAPNRMFSRPFRKHGVVPLATYMRIYKKGDIVDIKGMGTVQKGTPHKCYHGKTGRVYNVIQYAASIV VNKQVKGKILAKRINVRIEHIKHSESRDSFLKRVKENDQKKREAKEKGTWVQLKRQPAPPSKAHFVRTNGKEPEL LEPILYEFTA

GGCAGCCGAGGAGACCCCGCGCAGTGCTGCCAACGCCCCGGTGGAGAAGCTGAGGTCATCATCAGATTTGAAATA TTTAAAGTGGATACAAAATTATTTCAGCAATGCAGACAATTAAGTGTGTTGTTGTGGGCGATGGTGCTGTTGGTA AAACATGTCTCCTGATATCCTACACAAACAAATTTCCATCGGAATATGTACCGACTGTTTTTTGACAACTATG CAGTCACAGTTATGATTGGTGGAGAACCATATACTCTTGGACTTTTTGATACTGCAGGGCAAGAGGATTATGACA GATTACGACCGCTGAGTTATCCACAAACAGATGTATTTCTAGTCTGTTTTTCAGTGGTCTCTCCATCTTCATTTG CTGCTGAAAAGCTGGCCCGTGACCTGAAGGCTGTCAAGTATGTGGAGTGTTCTGCACTTACACAGAAAGGCCTAA AGAATGTATTTGACGAAGCAATATTGGCTGCCCTGGAGCCTCCAGAACCGAAGAAGAGCCGCAGGTGTGTGCTGC ${\tt TA} \underline{{\tt TGA}} {\tt ACATCTCTCCAGAGCCCTTTCTGCACAGCTGGTGTCGGCATCATACTAAAAGCAATGTTTAAATCAAACT}$ AAAGATTAAAAATTAAAATTCGTTTTTGCAATAATGACAAATGCCCTGCACCTACCCACATGCACTCGTGTGAGA CAAGGCCCATAGGTATGGCCCCCCCCTTCCCCCTCCCAGTACTAGTTAATTTTGAGTAATTGTATTGTCAGAAAA GTTGTTTAAAAGGAAGGCATGCTTGTGGATGACTCTGTAACAGACTAATTGGAATTGTTGAAGCTGCTCCCTGGT GTGTGTGTGGGGGTTTGTTTTTAGTCTTGTTTTTTAATTCATTAACCAGTGGTTAGCCCTTAAGGGGAGGAGGA TATAGTAAATGCCTCATTTAATAACATACTCCTTTTTGAAAGTTGCCTTTTCTCTCCACCCTTGAGTAGATCCAG TATTTGATGAAACTCATGAAAGTGGGTGGAGCCCATCTTGCCCCTCCTCTTTTCTAGGACGCACTATATGTGACT GTGACTTTCAAGGACATTTGTTTGCCATTTGCTGATTTTTTTGGGAAGTTAATTTCTAACTTCTTCACTGATAA ATGAAGAAAGTATTGCACCTTTGAAATGCACCAAATGAATTGAGTTTGTAATTAAAAAAATTTTTTCCCTTTC AGTCATTGTCTTATATGCTTAGCATAGATTTGCAGCTCAGTAGTATATGGTGTTCCTAGAATGCAGCTGAAGACC GGAGGATGGAGGCCTGCTTCATTAAGAAGCTGGGGGTAGGGTGGGGGTGGGGAGAACACTTAACAACATGGGGAC CAGTCAGGGGAATCCCCTTATTTCTGTTTTGCATATGAGGAACCCTAGAGCCAGGTGAGGCTCTCTAGTTTA ATAAAATCATGGAAAGACTCTTAATGCAGACTCTTCTTAAGTGTTAATAGGGATTTTTTCAGCTTATTTTGGTT GCAGTTTCCAATTTTTAAAAATGTTGAGGTAATCTTTCCCACCTTCCCAAACCTAATTCTTGTAGATGCATTAGT AAAAAAA

87/6881 FIGURE 82

MQTIKCVVVGDGAVGKTCLLISYTTNKFPSEYVPTVFDNYAVTVMIGGEPYTLGLFDTAGQEDYDRLRPLSYPQT DVFLVCFSVVSPSSFENVKEKWVPEITHHCPKTPFLLVGTQIDLRDDPSTIEKLAKNKQKPITPETAEKLARDLK AVKYVECSALTQKGLKNVFDEAILAALEPPEPKKSRRCVLL

CGCGCGCCCATTTCTAGTCGTTTTCAAAGCGCCTCGCGCTGATTCTCACGGGCCCGGCTGCCGGCCCCCGCTCT GCCCTGCATAATAAAATGGCTAATCAGGTGAATGGTAATGCGGTACAGTTAAAAGAAGAGGAAGAACCAATGGAT CTTGATGAAATATTTCAGACAGGATTGGTAGCTTATGTCGATCTTGATGAAAGAGCAATTGATGCTCTCAGGGAA TTTAATGAAGAAGGAGCTCTGTCTGTACTACAGCAGTTCAAGGAAAGTGACTTATCACATGTTCAGAACAAAAGT GCATTTTTATGTGGAGTTATGAAGACCTACAGGCAGAGAGAAACAGGGGAGCAAGGTGCAAGAGTCCACAAAG GGACCTGATGAAGCGAAGATCAAGGCCTTGCTTGAGAGAACTGGTTATACTCTGGATGTAACCACAGGACAGAGG AAGTATGGTGGTCCTCCACCAGACAGTGTGTACTCTGGCGTGCAACCTGGAATTGGAACGGAGGTATTTGTAGGC AAAATACCAAGGGATTTATATGAGGATGAGTTGGTGCCCCTTTTTGAGAAGGCCGGACCCATTTGGGATCTACGT CTTATGATGGATCCACTGTCCGGTCAGAATAGAGGGTATGCATTTATCACCTTCTGTGGAAAGGAAGCTGCACAG GAAGCCGTGAAACTGTGTGACAGCTATGAAATTCGCCCTGGTAAACACCTTGGAGTGTGCATTTCTGTGGCAAAC AACAGACTTTTTGTTGGATCCATTCCGAAGAATAAGACTAAAGAAAACATTTTGGAAGAATTCAGTAAAGTCACA GAGGGTTTGGTGGACGTTATTCTCTATCATCAACCCGATGACAAAAAGAAGAATCGGGGGGTTCTGCTTCCTTGAA TATGAGGATCACAAGTCAGCAGCACAAGCCAGACGCCGGCTGATGAGTGGAAAAGTAAAAGTGTGGGGAAATGTA AGAAACTTGGCTACTGCTGACAGAAGAATATTGGAAAAGTCATTTTCTGAATTTGGAAAACTCGAAAGAGTA AAGAAGTTGAAAGATTATGCATTTGTTCATTTTGAAGACAGAGGAGCAGCTGTTAAGGCTATGGATGAAATGAAT GGCAAAGAATAGAAGGGGAAGAATTGAAATAGTCTTAGCCAAGCCACCAGACAAGAAAAGGAAAGAGCGCCAA GCTGCTAGACAGGCCTCCAGAAGCACTGCGTATGAAGATTATTACTACCACCCTCCTCCTCGCATGCCACCTCCA ATTAGAGGTCGGGGTCGTGGTGGGGGGAGAGGTGGATATGGCTACCCTCCAGATTACTACGGCTATGAAGATTAC TATGATGATTACTATGGTTATGATTATCACGACTATCGTGGAGGCTATGAAGATCCCTACTACGGCTATGATGAT $\verb|CCACCTCCAAGAGGTAGAGCTGGCTATTCACAGAGGGGGGCACCTTTGGGACCACCAAGAGGCTCTAGGGGTGGC|\\$ AGAGGGGGTCCTGCTCAACAGCAGAGGGCCGTGGTTCCCGTGGATCTCGGGGCAATCGTGGGGCAATGTAGGA TCCCAACCCATCGCTCAGCAGCCGCTTCAGCAAGGTGGTGACTATTCTGGTAACTATGGTTACAATAATGACAAC CAGGAATTTTATCAGGATACTTATGGGCAACAGTGGAAG<mark>TAG</mark>ACAAGTAAGGGCTTGAAAATGATACTGGCAAGA TGCCATTTGTATTGGGCTGAAGAATCACTATTGTGTATATACTCAAGTCTTTTTATTTTTCCTCTTTTCATAAA TGCTCTTGGACATTATTGGGCTTGCAGAGTTCCCTTATTCTGGGGATTACAATGCTTTTATCGTTTCAGGCTTCA $\verb|TTTTAGCTTCAAAACAAGCTGGGCACACTGTTAAATCATGATTTTGCAGAACCTTTGGTTTTGGACAGTTTCATT|\\$ AGTAGTTTTAAGAAATTAAAGCAAACAAATTTAAGTTTTCTTGTATTGAAAATAACCTATGATTGTATGTTTTGC ATTCCTAGAAGTAGGTTAACTGTGTTTTTAAATTGTTATAACTTCACACCTTTTTGAAATCTGCCCTACAAAATT TGTTTGGCTTAAACGTCAAAAGCCGTGACAATTTGTTCTTTGATGTGATTGTATTTCCAATTTCTTGTTCATGTA AGATTTCAATAAAACTAAAAAATCTATTCAAAACATTA

89/6881 FIGURE 84

MANQVNGNAVQLKEEEPMDTSSVTHTEHYKTLIEAGLPQKVAERLDEIFQTGLVAYVDLDERAIDALREFNEEG
ALSVLQQFKESDLSHVQNKSAFLCGVMKTYRQREKQGSKVQESTKGPDEAKIKALLERTGYTLDVTTGQRKYGGP
PPDSVYSGVQPGIGTEVFVGKIPRDLYEDELVPLFEKAGPIWDLRLMMDPLSGQNRGYAFITFCGKEAAQEAVKL
CDSYEIRPGKHLGVCISVANNRLFVGSIPKNKTKENILEEFSKVTEGLVDVILYHQPDDKKKNRGFCFLEYEDHK
SAAQARRRLMSGKVKVWGNVVTVEWADPVEEPDPEVMAKVKVLFVRNLATTVTEEILEKSFSEFGKLERVKKLKD
YAFVHFEDRGAAVKAMDEMNGKEIEGEEIEIVLAKPPDKKRKERQAARQASRSTAYEDYYYHPPPRMPPPIRGRG
RGGGRGGYGYPPDYYGYEDYYDDYYGYDYHDYRGGYEDPYYGYDDGYAVRGRGGGRGGRGAPPPPRGRGAPPPRG
RAGYSQRGAPLGPPRGSRGGRGGPAQQQRGRGSRGSRGNRGGNVGGKRKADGYNQPDSKRRQTNNQQNWGSQPIA
QQPLQQGGDYSGNYGYNNDNQEFYQDTYGQQWK

91/6881 FIGURE 86

 ${\tt MKALSPVRGCYEAVCCLSERSLAIARGRGKGPAAEEPLSLLDDMNHCYSRLRELVPGVPRGTQLSQVEILQRVIDYILDLQVVLAEPAPGPPDGPHLPIQTAELTPELVISNDKRSFCH}$

 $\label{thm:constraint} \mbox{\tt MAQDQGEKENPMRELRIRKLCLNICVGESGDRLTRAAKVLEQLTGQTPVFSKARYTVRSFGIRRNEKIAVHCTVR} \\ \mbox{\tt GAKAEEILEKGLKVREYELRKNNFSDTGNFGFGIQEHIDLGIKYDPSIGIYGLDFYVVLGRPGFSIADKKRRTGC} \\ \mbox{\tt IGAKHRISKEEAMRWFQQKYDGIILPGK} .$

GGAAGTTCCGGCGGGGGGGCCGAGGGGGAAGAGTGTGTCTGCGGGAGAAAGAGGAGAATCGCCCAAGCGGCCTC GGAAGTCCCAGGGAGTGGAGGCCCCGCCGTGGAGCCGTGTGGTGTATCTGTGGTAACACCATGTCTGTGCCCCT GCTCACCGATGCTGCCACCGTGTCTGGAGCTGAGCGGGAAACGGCCGCGGTTATTTTTTTACATGGACTTGGAGA CACAGGGCACAGCTGGGCTGACGCCTCTCCACCATCCGGCTCCCTCACGTCAAGTACATCTGTCCCCATGCGCC TAGGATCCCTGTGACCCTCAACATGAAGATGGTGATGCCCTCCTGGTTTGACCTGATGGGGCTGAGTCCAGATGC TGGCAGTGCCAAGGACCTGGCCATACTCCAGTGCCATGGGGAGCTGGACCCCATGGTGCCCGTACGGTTTGGGGC GAGCCCTGTCCCCACCCTTCCTGACCTGTCCTTTTCCCACAGGCCTCTGGGGGCAGGTGGCAAGGCCTGGCCGG GCCTTCCTTCCTGGCCTTAGCCACCTGGCTCTGTCTGCAGCAGGGGCAGGCTGCTTTCTTATCCATTTCCCTGGA GGCGGGCCCCCTGGCAGCAGTATTGGAGGGGCTACAGGCAGCTGGAGAAAGGGGCCCAGCCGCTGACCCACTCA CTCAGGACCTCACTAGCCCCGCTTTGGGCCCCCTCCTGTGACCTCAGGGTTTGGCCCATGGGGCCCCCCCA GGCCCCTGCCCCAACTGATTCTGCCCAGATAATCGTGTCTCCTGCCTCCACTCAGCTGCTTCTCAGTCATGAATG TGGCCATGGCCCCGGGGTCCCCTTGCTGCTGTGGGCTCCCTGTCCCTGGGCAGGAGTGCTGGTGAGGAGGTGGAG CCTTTTGAGGGGGCCCTTCCCTCAGCTGTTTCCCCACACTGGGGGGCCTGGGCCCTGCCTCCCGTTACCCTCCTT

95/6881 FIGURE 90

MCGNTMSVPLLTDAATVSGAERETAAVIFLHGLGDTGHSWADALSTIRLPHVKYICPHAPRIPVTLNMKMVMPSW FDLMGLSPDAPEDEAGIKKAAENIKALIEHEMKNGIPANRIVLGGFSQGGALSLYTALTCPHPLAGIVALSCWLP LHRAFPQAANGSAKDLAILQCHGELDPMVPVRFGALTAEKLRSVVTPARVQFKTYPGVMHSSCPQEMAAVKEFLE KLLPPV



96/6881 FIGURE 91

CGTGCCTCGTCTCCCTGGAAAGGGAGGGAGGCTTCGACGTCGAGAGGGAGCCGCTGCCGCGTTAGTTCCGAGC TTGAAGTCACTAGGACTTCTCTCAAACTTGTGTGCTGAGGAGACTCAGATGTTGGCCTCAGCTCCTAGGCTGAAC TGGGCTTGGCAGCAAGGAAGAGACAGGTAGTGGAGATCCTGCAATCTGAAAAGCAGACTGAAAGGTGACAAAGA AGCTGAAG<u>ATG</u>GGTGGTGGAGAGAGGTATAACATTCCAGCCCCTCAATCTAGAAATGTTAGTAAGAACCAACAAC GTTATAACTCATCAGCAGCTGCCTGGCAGGCCATGCAAAATGGGGGGGAAGAACAAAAATTTTCCAAATAATCAAA GTTGGAATTCTAGCTTATCAGGTCCCAGGTTACTTTTTAAATCTCAAGCTAATCAGAACTATGCTGGTGCCAAAT TTAGTGAGCCGCCATCACCAAGTGTTCTTCCCAAACCACCAAGCCACTGGGTCCCTGTTTCCTTTAATCCTTCAG AGTTATGTTCACGGATAGTTGTCAATTGGTCTGAAACAAATTCGCTAGGGAATCTATTTGTGTAGAACTAATTAA TGTAAAAAAACAGACCATCTCGTGTTGTGTGCACTGTGATATAATGGTAGTATCAGTGCAACTTTAATGATTGT ACTTGATATTAAGTGTTCTCAACTGAGTAACTTTTAAGTGGAAACCAAGTTTAGATTTGGGGAGTGGTAAAGGAA CGGATTATAAGCTTCTAGCTAACACAAGGATTCAGAATTAGGTAAACATCTGAAGGTTTAGTATATTAGAAACAC AATTGTACAGTGGGTGGAAAGGGCATTTGGAGCTCATTAGAATGAGACATAGTACACCCCAATGGCCCTGTTTAT TAAATGTAGTGGATTAAGTGTCTGTCAACAAATACACCAAAACCATTTTTTATAGAAACAGTATTTAATGGTCAC TCAATAGCTTTCAAAATACATTTTTGTATTACAGCACTGCACAAGCTATTCTAATAGTGCTCTCGCCTCATCATT CCTGCAAAGCTTGCTTTGGGGAGTTGGATAATGTGAAAATTTTAAGTACCTAGGGGAGAAAGAGCCATGTAAATA TCTGTAATAAACTTGTAGCATATGTAAAGTTTTCTTGGCCTTTATCTTACAAAAATGGAGTATTTTAGTATGAAT TTGCTGAATGTAAGACCGTGGACTGTTTTTTATAATATGGCCTAATTTTAAAGGTCCAAAATAACTTGTTTTTAA CCCTAGTGTAATAAGTTTTATAACTAAAAAGGTTTAAGCTGCTAAAACTATTTTTAAGAGATGTGAAATGCAGTA TGGGACTATCTTTTTTCCTCCTCTAAGCCCAAAGATTAACTAGAGTCCCTCCAACCTTATAGATTGTTGGCTTT GTAGGTGCAACCCAATGGACCACTTATGCAAAAGATGTAAACTCTTGCATAATACATTGATAACATGTTTTTGCCA ACTTTAAATGCTTAAACATAAGCGAAACCAGTAGCAAGTATGTGGGTCAGCTTAAAAATTTTGATTGTTAATGCC AAGATGAAGTACTGCCCAAGTTAAATATTGATAGCCTAAAGACAAGTTTATGTAGTACTTAATGTACATGATATG

 ${\tt MGGGERYNIPAPQSRNVSKNQQQLNRQKTKEQNSQMKIVHKKKERGHGYNSSAAAWQAMQNGGKNKNFPNNQSWNSSLSGPRLLFKSQANQNYAGAKFSEPPSPSVLPKPPSHWVPVSFNPSDKEIMTFQLKTLLKVQV}$

98/6881 FIGURE 93

GTCTGAGGCTCGGCCGCCTGAGCCGCGGACGGTTTGCTGAGCCCGTTAGTGCGCCCGGCCGAGACACGCCGCCGC CATGTCCCGCTACCTGCGTCCCCCAACACGTCTCTGTTCGTCAGGAACGTGGCCGACGACACCAGGTCTGAAGA CTTGCGGCGTGAATTTGGTCGTTATGGTCCTATAGTTGATGTTGTTCCACTTGATTTCTACACTCGCCGTCC AAGAGGATTTGCTTATGTTCAATTTGAGGATGTTCGTGATGCTGAAGACGCTTTACATAATTTTGGACAGAAAGTG GATTTGTGGACGGCAGATTGAAATACAGTTTGCCCAGGGGGATCGAAAGACACCAAATCAGATGAAAGCCAAGGA AGGGAGGAATGTGTACAGTTCTTCACGCTATGATGATTATGACAGATACAGACGTTCTAGAAGCCGAAGTTATGA AAGGAGGAGATCAAGAAGTCGGTCTTTTGATTACAACTATAGAAGATCGTATAGTCCTAGAAACAGTAGACCGAC TGGAAGACCACGGCGTAGCAGAAGCCATTCCGACAATGATAGACCAAACTGCAGCTGGAATACCCAGTACAGTTC TGCTTACTACACTTCAAGAAAGATCTGAAAGCGGAAAAAGAACCAAAGAAGGGCAGTTCAAGCGACCAAAGGGTG GGTGGAAGGTGCTGCAGTATGAATACTGTACGAATATTTTGACTCTGGTCTGAAAAGATAAAAGAATGTTATCGA AAACTACATGGAATAATTGAAGTCCCTTCAAGTTTGAAAGTAAGCATTTTAGGACAAATAAAAGGAAATTCAACT TTGTACTTGTGGAAACTAATCCCTAAATATGAATAGGTTTATATTGATTCATGGGTAACAGGTCCATAATAAATT ACTGAATTGGGTGGGAAAAGGTATGGTCCAATATAAAAGTTCCATTTTTGCCATTATTGGCAAATCTTGCCTTTG TGCAGTTTACATCTGTCTTAACTACTCCTTCCCAGGTAAATTCCAATTATATTTGACATCCAGCTAACAGGGCCC ACTGGATAATTGAGAAAAATAGATAATTCCCTTATTCAGTAAATGTCTACTGAGCACAATCTAGTGAATCATTAC AGTATGGCCTCATTGTTTTGTTTGAGGTGTGTTATTCATAACAATATTTTACACCATTCGTATCAATGTAATTAT AGAACACAATATACGATCAAGGATAAGTAATTGTGTGGTTATCTGCCATTTAAAAGTATCCAGTATTTGATCACA TTATTATAAATAATGAAAAAATGATTTAATCTGTAATAAACTGGTTTATTGTGCAGTGACTGTAATATACTAGAG TTATAATAAATTGTTTACTCTGCCTCACCAAACACATGCTAGGATATAACCCCCAAAATAAGTATTTAACTTTGC TAGTATGTTCTGTAATTGAGAAAATGTTCACCAAATTATACTTTTTAGTGATTTACATGTACATTTTATAGGGGA CATGTTCTGTGTATAGCGAATAAATAACTTTTATAGTATCAC

MSRYLRPPNTSLFVRNVADDTRSEDLRREFGRYGPIVDVYVPLDFYTRRPRGFAYVQFEDVRDAEDALHNLDRKW ICGRQIEIQFAQGDRKTPNQMKAKEGRNVYSSSRYDDYDRYRRSRSRSYERRRSRSRSFDYNYRRSYSPRNSRPT GRPRRSRSHSDNDRPNCSWNTQYSSAYYTSRKI

FIGURE 95

GTCTGAGGCTCGGCCGCCTGAGCCGGGACGGTTTGCTGAGCCCGTTAGTGCGCCCGGCCGAGACACGCCGCCGC CATGTCCCGCTACCTGCGTCCCCCAACACGTCTCTGTTCGTCAGGAACGTGGCCGACGACACCAGGTCTGAAGA CTTGCGGCGTGAATTTGGTCGTTATGGTCCTATAGTTGATGTGTATGTTCCACTTGATTTCTACACTCGCCGTCC AAGAGGATTTGCTTATGTTCAATTTGAGGATGTTCGTGATGCTGAAGACGCTTTACATAATTTGGACAGAAAGTG GATTTGTGGACGGCAGATTGAAATACAGTTTGCCCAGGGGGATCGAAAGACACCAAATCAGATGAAAGCCAAGGA AGGGAGGAATGTGTAÇAGTTCTTCACGCTATGATGATTATGACAGATACAGACGTTCTAGAAGCCGAAGTTATGA AAGGAGGAGATCAAGAAGTCGGTCTTTTGATTACAACTATAGAAGATCGTATAGTCCTAGAAACAGTAGACCGAC TGGAAGACCACGGCGTAGCAGAAGCCATTCCGACAATGATAGATTCAAACACCGAAATCGATCTTTTTCAAGATC ATCTCACACCAAAACTAGAGGCACCTCTAAAACAGATTCCAAAACACATTATAAGTCTGGCTCAAGATATGAAAA GGAATCAAGGAAAAAAGAACCACCTAGATCCAAATCTCAGTCAAGATCACAGTCTAGGTCTAGGTCAAAATCTAG ${\tt ATCAAGGTCTTGGACTAGTCCTAAGTCCAGTGGCCAC} {\tt TGA} {\tt TAGTATAAACCATGGTCATTTTTAGGCATGTATCA}$ TTCATTTACTCATAGTTTGGTTTACTTAAATTATCAGGAATACAATGTTGCAATGATGCTTAAAAAAACACTTGTT AGTTTTCCCTGTACCAGGCAATGGTTATAATTAAAATGATATGCTGTTGAGAAGCCACTCTTAAGAGTCCAGTTT GTTTAATGTTATGGGCAGCTACCAATTTGTGGTGTCTCTGTATATTTTTTGTAAAGATTCTCATTTTTTATGCTTG AAGTATTTGGTGAAAAGATGTTGGTTGACCATAATTTGCAACATTGTCTCATTAAAAATAAACTTTCATATTCAT ATTTGGTAGAACTGTTAACCTAGAAATGTAGCTTGCTAATAAGATAGAATGATACAAAAGTGAAGTAGTAGCCAC AGTACAACACTGACTGCTCAGACACATTTAGGTTCAGGGTGGACCTTTATGTCTTGTCAAGATGTCTAGGCCCGG CGAGACCAGCCTGACCAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTATCCGGGCATGGTGGCACA TGCCTGTAATCTCAGCTACTCAGGAGGCTGAGGCAAGAGAATCGCTTGAACCTGGGAGGTAGAAGTTGCAGTGAG TCTAGGCCAATGATAATTATTTTGATGCAGTGTGGATTAGTTCTTTTGTTAACCCCACTGTCTTGGGGAATGAT GCCAGCTGGGAAATTGAGTTTTTGACTGAAACATGGAGCCTTCACTGCTTTTTTTCTGGTTCCTATGAAGATTTG GAACATAGAAAACACAAAAACTCACCTTAAAATTTGAGCAGGTCGTTGATGGCAAAAATAATTTTAAGGAAAAAG GAATATTCTTATGTAGTTATTCTAAAGTTTAAGGAGCGTTGTTGACCATAATATTGCTTAGTTTTCTTACTGCTG TTTATTTAATACGAGGCAAGTTGTAAGACAACACTCATTCTAGGTGATTCTGTGGTGCCATGAAATTTAAGGTAA TTTGGGGAAAAGGATTAGTCAGTTTTAAGCAAGAGTCACATCTTTTGAGCTTTCGATTATCAGTGTAGTACCTGA CTAAAAATGAAGTAATACCCTTAAACCATTTATAATTTCTAGTATTTCTCTGAAAGATCGTTTTGGGGACAAAAG TACAAGTACGAATTATGGACAAACGATTCCTTTTAGAGGATTACTTTTTTCAATTTCGGTTTTAGTAATCTAGGC TTTGTATATTTGATAGTATTTCTAACTTTCATTTCTTTACTGTTTGCAGTTAATGTTCATGTTCTGCTATGCAAT CGTTTATATGCACGTTTCTTTAATTTTTTTAGATTTTCCTGGATGTATAGTTTAAACAACAAAAAGTCTATTTAA AACTGTAGCAGTAGTTTACAGTTCTAGCAAAGAGGAAAGTTGTGGGGTTAAACTTTGTATTTCTTTATAGA GGCTTCTAAAAAGGTATTTTTATATĞTTCTTTTTAACAAATATTGTGTACAACCTTTAAAAACATCAATGTTTGGA TCAAAACAAGACCCAGCTTATTTTCTGCTTGCTGTAAATTAAGCAAACATGCTATAATAAAAACAAAATGAAGG

FIGURE 96

MSRYLRPPNTSLFVRNVADDTRSEDLRREFGRYGPIVDVYVPLDFYTRRPRGFAYVQFEDVRDAEDALHNLDRKW ICGRQIEIQFAQGDRKTPNQMKAKEGRNVYSSSRYDDYDRYRRSRSSYERRSRSRSFDYNYRRSYSPRNSRPT GRPRRSRSHSDNDRFKHRNRSFSRSKSNSRSRSKSQPKKEMKAKSRSRSASHTKTRGTSKTDSKTHYKSGSRYEK ESRKKEPPRSKSQSRSQSRSRSKSRSRSWTSPKSSGH

AGGAACGAGATGGCGGTTCTCTGGAGGCTGAGTGCCGTTTGCGGTGCCCAAGGAGGCCGAGCTGGCTCCAAGGCT
GCATCTCTCCACTGGACTAGCGAGAGGGTTGTCAGTGTTTTGCTCCCGGGTCTGCTTCCGGCTGCTTATTTGAAT
CCTTGCTCTGCGACGACTATTCCCTGGCTGCAGCCCTCACTCTTCATGGTCACTGGGGCCTTGGACAAGTTGTT
ACTGACTATGTTCATGGGGATGCCTCGCAGAAAGCTGCCAAGGCAGGGCTTTTGGCATTTTCAGCTTTAACCTTT
GCTGGGCTTTGCTATTTCAACTATCACGATGTGGGCATCTGCAAAGCTGTTGCCATGCTGTGGAAGCTCTGACCT
TTTTGACTTCCTACTTTGAAGAATTGATGTATGCCTCTTTGCCTCTGCTTTGTCATGCCATTAAGCTCACAATAA
GGAAGAAATAACAGATAAGTCCATTGGTGGACAGCCTTCTTCTCTTAATCACAAGATTATTTTCAGAATTTAACT
TTGAGGGAAAAGGTTTGAGAGGAATTATATTTAAGTTGTGAGACTGAGTTCTGTATTCTGGTGAGTTAATGGGGTT
GCCTCCCAGCTTCTTATAAGACTCACAGTATAACTAAACATGATATATCAGCTTTTTGCCTTTTAATTTCCAATC
TCTTAAAGAGAATC

CAGGAACGAGATGGCGGTTCCCTGGAGGCTGAGTGCCGTTTGCGGTGCCCAAGGAGGCCGAGCTCTGTTGCTGCG GCACATACACTTGTCACCGAGCCACCATTCTGGCTCCAAGGCTGCATCTCTCCACTGGACTAGCGAGAGGGTTGT CAGTGTTTTGCTCCCGGGTCTGCTTCCGGCTGCTTATTTGAATCCTTGCTCTGCGACGGACTATTCCCTGGCTGC AGCCCTCACTCTTCATGGTCACTGGGGCCTTGGACAAGTTGTTACTGATTATGTTCATGGGGGATGCCTCGCAGAA AGCTGCCAAGGCAGGCTTTTGGCATTTTCAGCTTTAACCTTTGCTGGGCTTTGCTATTTCAACTATCACGATGT GGGCATCTGCAAAGCTGTTGCCATGCTGTGGAAGCTCTGACCTTTTTGACTTCCTACTTTGAAGAATTGATGTAT GCCTCTTTGCCTCTGCTTTGTCATGCCATTAAGCTCACAATAAGGAAGAAATAACAGATAAGCCCATTGGTGGAC AGCCTTCTTCTCTAATCACAAGATTATTTTCAGAATTTAATCTTTGAGGAAAAGGTTTGAGAGGAATTATATCT AAGTTGTGAGACTGAGTTCTGTATTCTGGTGAGTTAATGGGGTTGCCTCCCAGCTTCTTATAAGACTCACAATAT AACTAAACATGATATATCAGCTTTTGCCTTTTAATTTCTCAATCTCTTAAAGAGAATCCAGCTTTATTATGATTA GTACATGATCAAATTTCCATATTTGCCTTGGGAATAATGGACAAAGGGAAATACTCTTAATTCATGAATAAAAAC TTTGCAGAAAATTAGACAGTGTTTAATTTTCAAAAACTTCCCTCTCTAGTCAGTAGATACCACCTACTGATGGTT ACATATACTAGGGAAATTTTAAAATTAGGAAATGCTGCTATCTCATATTATAAATTTCTAAATCCTAGGAAGAAA CGCTTGGAGTGCTTCTGAAGATACAGAAGTTCCATTTAAGGGCAAGTTTCCCCAGAGACATATCAAAATATTATC CATTGTAAACTGAGATTTAATTCTCAAATGTATTCTACTTGTTCTAAAACAATCTGTCCACAAATATAAAACTAT AAGTAATAAATTGTTATTTCCGCACAATGGGAATCTCTAATGTGAAAATGTATTCTATGAAAAATAATTTTTTTAA ATAAAATGTTGTATAAAAAAA

104/6881 FIGURE 99

AGAGAGAAAGGTTGTGATGGCGGCTATAGCTGCATCCGAGGTGCTGGTGGACAGCGCGGAGGAGGGGTCCCTCGC TGCGGCGGGGGGGCTGGCCGCTCAGAAGCGCGAACAGAGACTGCGCAAATTCCGGGAGCTGCACCTGATGCGGAA TGAAGCTCGTAAATTAAATCACCAGGAAGTTGTGGAAGAAGATAAAAGACTAAAATTACCTGCAAATTGGGAAGC TGATCTGGGATTTTCAGATTATGCTGCTGCCCAGTTACGCCAGTATCATCGGTTGACCAAGCAGATCAAACCTGA CATGGAAACATATGAGAGACTGAGAGAAAAACATGGAGAAGAGTTTTTCCCAACATCCAATAGTCTTCTTCATGG AAGACATGTGCCTTCCACAGAGGAAATTGACAGGATGGTCATAGATCTGGAAAAACGAGTTGAAAAACGAGACAA ATATAGCCGGAGACGTCCTTATAATGATGATGCAGATATCGACTACATTAATGAAAGGAATGCCAAATTCAACAA GAAAGCTGAAAGATTCTATGGGAAATACACAGCTGAAATTAAACAGAATTTGGAAAGAGGAACAGCTGTC<u>TAA</u>TC CCTTCAAGAACTGTTTATAGAAGCTTGAGAATGGGGTAAAAATTTCTGCTAGCAAAATCAAGTTCTTTTTGAAAT CGTATATCCTTTCATGTATATTTCCACATTTTTGTGCTTGGATATAAGATGTATTTCTTGTAGTGAAGTTGTTTT GTAATCTACTTTGTATACATTCTAATTATTATTTTTCTATGTATTTTAAATGTATATGGCTGTTTAATCTTTG AAGCATTTTGGGCTTAAGATTGCCAGCAGCACACATCAGATGCAGTCATTGTTGCTATCAGTGTGGAATTTGATA GAGTCTAGACTCGGGCCACTTGGAGTTGTGTACTCCAAAGCTAAGGACAGTGATGAGGAAGATGGCAGTGGCCAC CGGAGGACTGGAGCAGTCCCTCATGGCGGCCTGTGACCAAGGTCGGGGAGGAGTGGAGCTATCCTTCCATGA

105/6881 FIGURE 100

MAAIAASEVLVDSAEEGSLAAAAELAAQKREQRLRKFRELHLMRNEARKLNHQEVVEEDKRLKLPANWEAKKARL EWELKEEEKKKECAARGEDYEKVKLLEISAEDAERWERKKKRKNPDLGFSDYAAAQLRQYHRLTKQIKPDMETYE RLREKHGEEFFPTSNSLLHGTHVPSTEEIDRMVIDLEKQIEKRDKYSRRRPYNDDADIDYINERNAKFNKKAERF YGKYTAEIKQNLERGTAV

FIGURE 101A

GGCGGCCCACTCTGCTCTGTCAGCTTCGGAGCTCCTCCACCCTGGCTGCCGAAAGCCCCCTTCCCGCCATCTAATG ATACACTCTGCATACGCTTCTGTTGAGAATTTGTGGCTAGACATTCCTGTGGGACCGGGAATCCAAATTCTTGGT AGCTAGAGGAAAAAAAAAAAAAACAACAGCCAACCAAGTGAATCCCAACCCAACCCCTGAAGGGCTGAAAATTC TCGCCTTCTTCAGAGCGGGGCATGGCATCGAACAGCATCTTCGACTCCTTCCCGACCTACTCGCCGACCTTCATC GGCGAGAACAGCGGCGCGCTGAGCGCGCAGGCGGCCGTGGGGCCCGGAGGGCGCCCGGAGGTGCGCTCG ATGGTGGACGTGCTGGCGGACCACGCAGGCGAGCTCGTGCGCACCGACAGCCCCAACTTCCTCTGCTCCGTGCTG CCCTCGCACTGGCGCTGCAACAAGACGCTGCCCGTCGCCTTCAAGGTGGTGGCATTGGGGGACGTGCCGGATGGT ACGGTGGTGACTGTGATGGCAGGCAATGACGAGAACTACTCCGCTGAGCTGCGCAATGCCTCGGCCGTCATGAAG AACCAGGTGGCCAGGTTCAACGACCTTCGCTTCGTGGGCCGCAGTGGGCGAGGGAAGAGTTTCACCCTGACCATC CCCAGACGGCACCGGCAGAAGCTGGAGGACCAGACCAAGCCGTTCCCTGACCGCTTTGGGGACCTGGAACGGCTG CAGACCCCAATCCAAGGCACCTCGGAACTGAACCCATTCTCCGACCCCCGCCAGTTTGACCGCTCCTTCCCCACG CTGCCAACCCTCACGGAGAGCCGCTTCCCAGACCCCAGGATGCATTATCCCGGGGCCATGTCAGCTGCCTTCCCC TACAGCGCCACGCCTCGGGCACGAGCATCAGCAGCCTCAGCGTGGCGGGCATGCCGGCCACCAGCCGCTTCCAC CATACCTACCTCCCGCCACCCTACCCGGGGGCCCCGCAGAACCAGAGCGGGCCCTTCGAGGCCAACCCGTCCCCC TACCACCTCTACTACGGGACATCCTCTGGCTCCTACCAGTTCTCCATGGTGGCCGGCAGCAGCAGTGGGGGGGCGAC CGCTCACCTACCCGCATGCTGGCCTCTTGCACCAGCAGCGCTGCCTCTGTCGCCGGCGGCAACCTCATGAACCCC AGCCTGGGCGGCCAGAGTGATGGCGTGGAGGCCGACGGCCACAGCAACTCACCCACGGCCCTGAGCACGCCA GGCCGCATGGATGAGGCCGTGTGGCGGCCCTACTGACCGCCCTGGTGGACTCCTCCCGCTGGAGGCGGGGACCCT $\tt CGGTCCCAGGTGGTCCCAGCTGGTGGGAGCCTCTGGCTGCATCTGTGCAGCCACATCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCCTTGTACAGAGGCATAGGTCTTGTACAGAGGCATAGGTCTTGTACAGAGGCATAGGTCTTGTACAGAGGCATAGGTCTTGTACAGAGGCATAGGTCTTAGGTCTTGTACAGAGGCATAGGTCTTGTACAGAGGCATAGGTCTTAGGTCTTGTACAGAGGCATAGGTCTTAGGTCTTGTACAGAGGCATAGGTCTTAGGTCTTAGGTCTTGTACAGAGGCATAGGTCTAGGTCTTAGGTCTAGGTCTAGGTCTTAGGTCTTAGGTCTTAGGTCTAGGTCTTAGGT$ GTTACCACCCCACCCGGCCCGGGATACTGCCCCCGGCCCAGATCCTGGCCGTCTCATCCCATACTTCTGTGGG GAATCAGCCTCCTGCCACCCCCGGGAAGGACCTCACTGTCTCCAGCTATGCCCAGTGCTGCATGGGACCCATGT CTCCTGGGACAGAGCCATCTCTCTCCAGAGAGAGGCAGCATTGGCCCACAGGATAAGCCTCAGGCCCTGGGAA ACCTCCCGACCCTGCACCTTCGTTGGAGCCCCTGCATCCCCTGGGTCCAGCCCCCTCTGCATTTACACAGATTT GAGTCAGAACTGGAAAGTGTCCCCCACCCCCACCACCCTCGAGCGGGGTTCCCCTCATTGTACAGATGGGGCAGG ACCCAGCACGCTGCTGGCAGAGATGGTTTGAGAACACATCCAAGCCAGTCCCCCAGCCCAGCTTCCCCTCCGTT CCTAACTGTTGGCTTTCCCCCAGCCGCACGGGTCCCAGGCCCCAGAGAAGATGAGTCTATGGCATCAGGTTCTTA AACCCAGGAAAGCACCTACAGACCGGCTCCTCCATGCACTTTACCAGCTCAACGCATCCACTCTCTGTTCTCTTG GCAGGGCGGGGGGGGGGTAGGAGGTCCCCTTTCCCCTAGGTGGTCTCATAATTCCATTTGTGGAGAGAACAG GAGGGCCAGATAGATAGGTCCTAGCAGAAGGCATTGAGGTGAGGGATCATTTTGGGTCAGACATCAATGTCCCTG TCCCCCCTGGGTCCAGCCAAGCTGTGCCCCATCCCCAAGCCTCCTGGGAGGATCCAGCCAAATCTTGCGACTCC AAAACAAAAAAAAACAAAACAGTTTTTAAAACTGATTTTAGAAAAAGAAGCTTAATCTAACGTTTTCAAACACA AGGTCTCTTACAGGTATAGTTCCGTGATTATGATAGCTCTGTGATTATAAGCAACATCCCCGCCCCCTCTCCCCC CCGCGGACCCCCAGCTGCCTCCTGAGGGTGTGGGGTTATTAGGGTCTCAATACTTTCTCAAGGGGCTACACTCCC CATCAGGCAGCATCCCACCAGCCTGCACCACAGGCTCCCCTGGGAGGACGAGGGAAACGCTGATGAGACGCTGGG CATCTCTCTCTGTGGCTCTAGGACATCTGTCCAGGAGGCTGGGCGGAGGTGGGCAGGATGTGAGAGGTGGGGAG TACTGGCTGTGCGTGGCAGGACAGAAGCACTGTAAAGGGCTCTCCAGCCGCAGCTCAGCTGCACTGCGTTCCGAG GTGAAGTCTTGCCCCTGAATTTTGCAAAATGGGAAAGTGGGCGCTTGCCCAAGGGCCAGGCTGCATGGATTCTCA CATCAGAGTTCTCTGGCCCTAGAAAGGCTTAGAAAAGGCGTAAGGGAACTCATAAAGGCTAGCAGCATGCGGTAT TTTAACTTTCTGCCTCGGCCTCTGTGGATGCAGAAATCTGCCCTACAAAATGCTCTTCATTGGTTGTCTCTGTGA GAGCACTGTCCCCACCCAACCTGTCACAACGGCCAGAACCATACACCAGAGACACACTGGCAGGTTAGGCAGTCC TTCTGGTGATCCTATTCCATTCCCTCCTGCTGCGGTTTCTCTTGGCCTGTCCTCACTGGAAAAACAGTCTCCATC TCCTCAAAATAGTTGCTGACTCCCTGCACCCAAGGGGCCTCTCCATGCCTTCTTAGGAAGCAGCTATGAATCCAT TGTCCTTGTAGTTTCTTCCCTCCTGTTCTCTGGTTATAGCTGGTCCCAGGTCAGCGTGGGAGGCACCTTTGGGTT

FIGURE 101B

108/6881 FIGURE 102

CAGGAACGAGATGGCGGTTCTCTGGAGGCTGAGTGCCGTTTGCGGTGCCCAAGGAGGCCGAGCTCTGTTGCTGCG GCACATACACTTGTCACCGAGCCACCATTCTGGCTCCAAGGCTGCATCTCTCCACTGGACTAGCGAGAGGGTTGT CAGTGTTTTGCTCCCGGGTCTGCTTCCGGCTGCTTATTTGAATCCTTGCTGCGACGGACTATTCCCTGGCTGC AGCCCTCACTCTTCATGGTCACTGGGGCCTTGGACAAGTTGTTACTGACTATGTTCATGGGGATGCCTCGCAGAA AGCTGCCAAGGCAGGCTTTTGGCATTTTCAGCTTTAACCTTTGCTGGGCTTTTGCTATTTCAACTATCACGATGT GGGCATCTGCAAAGCTGTTGCCATGCTGTGGAAGCTCTGACCTTTTTGACTTCCTACTTTGAAGAATTGATGTAT GCCTCTTTGCCTCTGCTTTGTCATGCCATTAAGCTCACAATAAGGAAGAAATAACAGATAAGTCCATTGGTGGAC AGCCTTCTTCTCTTAATCACAAGATTATTTTCAGAATTTAACTTTGAGGGAAAAGGTTTGAGAGGAATTATATTTA AGTTGTGAGACTGAGTTCTGTATTCTGGTGAGTTAATGGGGTTGCCTCCCAGCTTCTTATAAGACTCACAGTATA ACTAAACATGATATATCAGCTTTTGCCTTTTAATTTCTCAATCTCTTAAAGAGAATCCAGCTTTAGTATGATTAG CATATGATCAAACTTCCATATTTGCCTTGGGAATAATGGACTAAGGGAAATACTCTTAATTCATGAATAAAAACT TTGCAGAAAATTAGACAGTGTTTAATTTTCAAAAACTTCCCTCTCTAGTCGGTAGATACCACCTACCGATGGTTA CATATACTAGGGAAATTTTAAAATTAGGAAATGCTGATATCTCATATTATAAATTTCTAAATCCTAGGAAGAAAC GCTTGGAGTGCTTCTGAAGATACAGAAGTTCCATTTAAGGGCAAGTTTCCCCATAGACGTATCAAAATATTACCC ATTGTAAACTGAGATTTAATTCTCAAATGTATTCTACTTGTTCTAAAACAATCTGTCCACAAATATAAAACTATA AAAATGTTGTATAATAA

FIGURE 103

AGGAACGAGATGGCGGTTCTCTGGAGGCTGAGTGCCGTTTGCGGTGCCCAAGGAGGCCGAGCTGGCTCCAAGGCT
GCATCTCTCCACTGGACTAGCGAGAGGGTTGTCAGTGTTTTGCTCCCGGGTCTGCTTCCGGCTGCTTATTTGAAT
CCTTGCTCTGCGACGACTATTCCCTGGCTGCAGCCCTCACTCTTCATGGTCACTGGGGCCTTGGACAAGTTGTT
ACTGACTATGTTCATGGGGATGCCTCGCAGAAAGCTGCCAAGGCAGGGCTTTTGGCATTTTCAGCTTTAACCTTT
GCTGGGCTTTGCTATTTCAACTATCACGATGTGGGCATCTGCAAAGCTGTTGCCATGCTGTGGAAGCTCTGACCT
TTTTGACTTCCTACTTTGAAGAATTGATGTATGCCTCTTTTGCCTCTGCTTTGTCATGCCATTAAGCTCACAATAA
GGAAGAAATAACAGATAAGTCCATTGGTGGACAGCCTTCTTCTCTTAATCACAAGATTATTTTCAGAATTTAACT
TTGAGGGAAAAGGTTTGAGAGGAATTATATTTAAGTTGTGAGACTGAGTTCTGTATTCTGGTGAGTTAATGGGGTT
GCCTCCCAGCTTCTTATAAGACTCACAGTATAACTAAACATGATATATCAGCTTTTTGCCTTTTAATTTCCAATC
TCTTAAAGAGAATC

 ${\tt MAVLRRLSALYGAQGGRALLLRTPVIRPAHISAFLQDRPIPEWCGVQHLHLSPSHHPGSKAASLHWTSERVVSVLLGLLPAAYLNPCSAMDYSLAATLTLPGHWGLRQVVTMFMGMPRRKLPRQGFWHFQL}$

AGTGTGGTCAGGCGGCTCGGACTGAGCAGGACTTTCCTTATCCCAGTTGATTGTGCAGAATACACTGCCTATCGC $\verb|TTGTCTTCTATTCACC| \textbf{ATG} \\ \texttt{GCTTCTTCTGATATCCAGGTGAAAGAACTGGAGAAGCGTGCCTCAGGCCAGGCTTT} \\$ TGAGCTGATTCTCAGCCCTCGGTCAAAAGAATCTGTTCCAGAATTCCCCCTTTCCCCTCCAAAGAAGAAGAAGATCT TTCCCTGGAGGAAATTCAGAAGAAATTAGAAGCTGCAGAAGAAGACGCAAGTCCCATGAAGCTGAGGTCTTGAA GCAGCTGGCTGAGAAACGAGAGCACGAGAAAGAAGTGCTTCAGAAGGCAATAGAAGAGAACAACAACTTCAGTAA AATGGCAGAAGAAAACTGACCCACAAAATGGAAGCTAATAAAGAGAACCGAGAGGCACAAATGGCTGCCAAACT GGAACGTTTGCGAGAGAAGGATAAGCACATTGAAGAAGTGCGGAAGAACAAAGAATCCAAAGACCCTGCTGACGA ${ t GACTGAAGCTGAC}$ TTTGTTCTGAGAACTGACTTTCTCCCCATCCCCTTCCTAAATATCCAAAGACTGTACTG GCCAGTGTCATTTTATTTTTTCCCTCCTGACAAATATTTTAGAAGCTAATGTAGGACTGTATAGGTAGATCCAGA TCCAGACTGTAAGATGTTGTTTTAGGGGCTAAAGGGGAGAAACTGAAAGTGTTTTACTCTTTTTCTAAAGTGTTG GTCTTTCTAATGTAGCTATTTTTCTTGTTGCATCTTTTCTACTTCAGTACACTTGGTGTACTGGGTTAATGGCTA GTACTGTATTGGCTCTGTGAAAACATATTTGTGAAAAGAGTATGTAGTGGCTTCTTTTGAACTGTTAGATGCTGA ATATCTGTTCACTTTTCAATCCCAATTCTGTCCCAATCTTACCAGATGCTACTGGACTTGAATGGTTAATAAAAC TGCACAGTGCTGTTGGTGGCAGTGACTTCTTTTGAGTTAGGTTAATAAATCAAGCCATAGAGCCCCTCCTGGTTG ATACTTGTTCCAGATGGGGCCTTTGGGGCTGGTAGAAATACCCAACGCACAAATGACCGCACGTTCTCTGCCCCG CTGTTACTTTCTTCAGATGTTTATTTGCAAACAACCATTTTTTGTTCTGTGTCCCTTTTAAAAGGCAGATTAAA ACAGGTGGGGCATGTCCTCATCCTTTCCTGCCATAAAAGCTATGACACGAGAATCAGAATATTAATAAAACTTTA TGTACTGCTGT

112/6881 FIGURE 106

 ${\tt MASSDIQVKELEKRASGQAFELILSPRSKESVPEFPLSPPKKKDLSLEEIQKKLEAAEERRKSHEAEVLKQLAEK}$ ${\tt REHEKEVLQKAIEENNNFSKMAEEKLTHKMEANKENREAQMAAKLERLREKDKHIEEVRKNKESKDPADETEAD}$

 $\texttt{CGAGTGAGGGATTTCGCCGCCCGCTTTCAGGCCCGTTTGGCTTAAATAACTGTGATTG} \underline{\textbf{ATG}} \\ \texttt{CCATGCAGGAGAA} \\$ ATATCCAACTGAGGGGATCTCTCACGTCACTTCACCGAGTTCCGATGTGATTCAGAAGGGCAGTTCCCTGGGGAC TGAATGGCAGACCCCAGTTATCTCGGAGCCCTTTCGGAGCCGCTTCAGCCGCTGTTCAAGTGTAGCCGACAGTGG GGACACAGCCATTGGTACATCATGCTCAGATATTGCGGAGGATTTTTGCAGCTCAAGTGGCAGTCCTCCTTTCCA GCCCATCAAAAGCCACGTAACCATTCCAACAGCCCATGTGATGCCTTCTACTTTAGGGACCTCTCCTGCCAAGCC AAATTCTACACCTGTTGGACCCTCTTCCTCTAAACTCCCTTTGTCAGGGTTGGCTGAAAGTGTGGGAATGACAAG AAATGGAGACCTCGGTGCAATGAAACATTCTCCAGGCCTATCTAGAGATCTCATGTATTTCTCTGGTGCTACTGG AGAAAATGGAATTGAGCAGTCCTGGTTTCCAGCAGTGGGCCATGAAAGACAAGAAGAGGCGAGGAAGTTTGATAT TCCTAGCATGGAATCTACCCTCAATCAGTCGGCAATGATGGAGACACTTTATTCAGATCCTCACCACCGAGTCCG CTTCCACAACCCAAGAACCAGCACAAGTAAGGAGTTGTACAGAGTGTTGCCTGAGGCCAAGAAGGCACCGGGCAG CGGGGCAGTGTTTGAGCGGAATGGACCACATTCTAATAGCAGTGGGGTCCTCCCTTTGGGACTCCAGCCTGCTCC CGGGCACTCCAGCCAGCCTCTGCCCTCTCAGGTGTGGCAGCCGAGTCCTGACACTTGGCATCCCCGAGAGCAATC TTGTGAACTCAGCACTTGTCGGCAGCAGCTGGAATTGATTCGTTTACAGATGGAGCAAATGCAGCTTCAGAATGG AGCCATCTGCCACCATCCTGCTGCTTTTGGTCCTTCACTGCCCATCTTAGAGCCAGCACAGTGGATCAGCATCTT GAACAGTAATGAACACCTTCTGAAGGAAAAAGAGCTTCTCATTGACAAGCAGAGGAAACACATCTCTCAGCTGGA GCAGAAAGTGCGAGAGAGCGAACTGCAAGTCCACAGTGCCCTCTTGGGCCGCCCTGCCCCCTTTGGTGATGTCTG CTTGCTGAGGCTACAGGAATTGCAGCGAGAAAACACTTTCTTACGTGCACAGTTTGCACAGAAGACAGAAGCCTT GAGCAGAGAAAAGATTGACCTTGAAAAGAAACTCTCTGCTTCTGAAGTTGAAGTCCAGCTCATCAGAGAGTCGCT CAAAGTGGCGTTGCAGAAGCATTCTGAGGAAGTGAAGAACAGGAAGAAAGGGTCAAAGGTCGTGATAAACATAT CAATAATTTGAAAAAGAAATGCCAGAAGGAATCAGAGCAGAACCGGGAGAAGCAGCAGCGTATTGAGACCTTGGA GCGCTACCTGGCTGACCTGCCCACACTGGAAGACCATCAGAAGCAGAGCCAGCAGCTTAAGGATTCTGAGTTGAA GAGCACAGAGCTGCAGGAGAAAGTGACTGAGCTGGAGAGTTTGCTGGAGGAGACCCAGGCAATCTGCAGAGAGAA GGAGATTCAACTGGAAAGCCTGAGGCAGAGAGAAGCAGAATTCTCCTCCGCTGGACATAGCCTGCAAGATAAACA GTCTGTGGAGGAGACCAGTGGAGAGGTCCAGAAGTGGAAATGGAGTCCTGGCAGAAGCGATACGATTCGCTCCA AAAGATTGTGGAGAAGCAGCAGCAGAAGATGGATCAGTTGCGCTCACAAGTACAGAGCCTAGAGCAGGAAGTGGC GGCCCAACCAGGGTCTCCACCTTCACCAGACACGGCCCAGCTGGCACTTGAGCTGCACCAGGAGTTGGCCAGTTG CCTTCAAGATCTGCAGGCTGTCTGTAGCATTGTGACCCAGAGGGCCCAGGGCCATGACCCCAATCTCTCCCTGCT CCTGGGCATTCACTCACAGCACCCAGAGACTCAGCTAGATTTGCAGAAGCCAGATGTGATCAAGAGGAAACTAGA $AGAAAACTGTGTCACACAG{f TGA}{GGAATTCTGGGGGGATTCCCCCAGGGAGGAGCTGGGCTGCTGAGAGCCTAGTCC$ AGCAGGTTTCTGCCCTGACATTCTCTTGTCTGCTATTCCCAGAGAGGTCTCAGAGGGGAGGGGAGAGCCTGCATC TGGGGGCCAAGGGCTGATTAGGGAACTGTGTCCTACCCACACTGGCATGTTGGATTACGTTTGTCCTGTTAATTC ACTCTCGACGGTGAGTTACTAATTAACTTTTGGCAGGTACAACAGATAAGTCCTCACAAACTGTTCCCAGCCCTA TCACACCTTGGTCCTGATTAGAGAGCTCATCAGAGGGGCCTGGAAAGGCTGAGCAAGTACCAGTGACAATGG CCATTTAAGAATTCTCAGGCCCCATGTGCCAGCCTTCTTGGGAACTGAGCTGGCTTTCTGGGTTTTCTCATGCCT GGTCTTACTGCTTCTCCTCAGGGCTCTTGTTCTCCCAGAAGCCTCAGGGTAATGTGTTGGTTAGCACGTAACTA CTAGGATTGGGGCCCTAGGGATTATAGCCAGGACTCTAATCTGCCTACCATGCCATTTAACAAGAGATCCCACTC TCCAGCTGCCTTGTGTCCCTAGGGTCCTGGCCATGTGTTTAGTGTGCTAAACTTTCTCCTTTGTTCTCAGGCCTT CCAGGTAGTCCCCTTCCTGGACTTAAGAGTGCAAACTCTTCTCTGTGGTTCTAGCCTTGGGCAGAATTATATCCC AGAGACCACAGAGCAACTGTCAAGCTGCTTACCCCCTCACCCAGGGCTACAGCCTGTGCCCAGCCCTCTAATTTG TGCCTCTTGTGTTGGGGGGTGGGGGGTTATTCCTTTCCCTTTCCTGCTCTGGCCTCCTTGAAAGTTCAGAGT TTTGTTATGTCCATTTGTTTTGTATTGCGTATTTTGATTATAAAATAAAGTATCTTAACAG

MAMQEKYPTEGISHVTSPSSDVIQKGSSLGTEWQTPVISEPFRSRFSRCSSVADSGDTAIGTSCSDIAEDFCSSS
GSPPFQPIKSHVTIPTAHVMPSTLGTSPAKPNSTPVGPSSSKLPLSGLAESVGMTRNGDLGAMKHSPGLSRDLMY
FSGATGENGIEQSWFPAVGHERQEEARKFDIPSMESTLNQSAMMETLYSDPHHRVRFHNPRTSTSKELYRVLPEA
KKAPGSGAVFERNGPHSNSSGVLPLGLQPAPGHSSQPLPSQVWQPSPDTWHPREQSCELSTCRQQLELIRLQMEQ
MQLQNGAICHHPAAFGPSLPILEPAQWISILNSNEHLLKEKELLIDKQRKHISQLEQKVRESELQVHSALLGRPA
PFGDVCLLRLQELQRENTFLRAQFAQKTEALSREKIDLEKKLSASEVEVQLIRESLKVALQKHSEEVKKQEERVK
GRDKHINNLKKKCQKESEQNREKQQRIETLERYLADLPTLEDHQKQSQQLKDSELKSTELQEKVTELESLLEETQ
AICREKEIQLESLRQREAEFSSAGHSLQDKQSVEETSGEGPEVEMESWQKRYDSLQKIVEKQQQKMDQLRSQVQS
LEQEVAQEEGTSQALREEAQRRDSALQQLRTAVKELSVQNQDLIEKNLTLQEHLRQAQPGSPPSPDTAQLALELH
QELASCLQDLQAVCSIVTQRAQGHDPNLSLLLGIHSQHPETQLDLQKPDVIKRKLEEVQQLRRDIEDLRTTMSDR
YAQDMGENCVTO

GTAGCAGCTTCTTCTCCGAACCAACCCTTTGCCTTCGGACTTCTCCGGGGCCAGCAGCCGCCCGACCAGGGGCCCC GGGGCCACGGGCTCAGCCGACGACCATGGGCTCCGTGTCCAACCAGCAGTTTGCAGGTGGCTGCGCCAAGGCGGC CCCCCAGTGGATGTCTTTGTGCACCAGAGTAAGCTGCACATGGAAGGGTTCCGGAGCTTGAAGGAGGGTGAGGC TATTGGGAGTGAGAGGCGCCAAAAGGAAAGAGCATGCAGAAGCGCAGATCAAAAGGAGACAGGTGCTACAACTG TGGAGGTCTAGATCATGCCAAGGAATGCAAGCTGCCACCCCAGCCCAAGAAGTGCCACTTCTGCCAGAGCAT CAGCCATATGGTAGCCTCATGTCCGCTGAAGGCCCAGCAGGGCCCTAGTGCACAGGGAAAGCCAACCTACTTTCG TTCTTTGCTATCAGGAAGTTTTGAGGAGCAGGCAGAGTGGAGAAAGTGGGAATAGGGTGCATTGGGGCTAGTTG GCACTGCCATGTATCTCAGGCTTGGGTTCACACCATCACCCTTTCTTCCCTCTAGGTGGGGGGAAAGGGTGAGTC AAAGGAACTCCAACCATGCTCTGTCCAAATGCAAGTGAGGGTTCTGGGGGGCAACCAGGAGGGGGAATCACCCTA CAACCTGCATACTTTGAGTCTCCATCCCCAGAATTTCCAGCTTTTGAAAGTGGCCTGGATAGGGAAGTTGTTTTC CTTTTAAAGAAGGATATATAATAATTCCCATGCCAGAGTGAAATGATTAAGTATAAGACCAGATTCATGGAGCCA CACTTTTGGGATAGGGTGCTGGCAGCTGTCCCAAGCAATGGGTAATGATGATGGCAAAAAGGGTGTTTGGGGGAA GGATACTGCACCTTGGGTCCCACTTTCTCCAGGATGCCAACTGCACTAGCTGTGTGCGAATGACGTATCTTGTGC ATTTTAACTTTTTTCCTTAATATAAATATTCTGGTTTTGTATTTTTGTATATTTTAATCTAAGGCCCTCATTTC CTGCACTGTGTTCTCAGGTACATGAGCAATCTCAGGGATAGCCAGCAGCAGCTCCAGGTCTGCGCAGCAGCAATT ACTITITGTTGTTTTTTGCCACCGTGGAGAGCAACTATTTGGAGTGCACAGCCTATTGAACTACCTCATTTTTGCC AATAAGAGCTGGCTTTTCTGCCATAGTGTCCTCTTGAAACCCCCTCTGCCTTGAAAATGTTTTATGGGAGACTAG GTTTTAACTGGGTGGCCCCATGACTTGATTGCCTTCTACTGGAAGATTGGGAATTAGTCTAAACAGGAAATGGTG GTACACAGAGGCTAGGAGAGGCTGGGCCCGGTGAAAAGGCCAGAGAGACCAAGATTAGGTGAGGGTTGTCTA ATCCTATGGCACAGGACGTGCTTTACATCTCCAGATCTGTTCTTCACCAGATTAGGTTAGGCCTACCATGTGCCA CAGGGTGTGTGTGTTTGTAAAACTAGAGTTGCTAAGGATAAGTTTAAAGACCAATACCCCTGTACTTAATCCT GTGCTGTCGAGGGATGGATATATGAAGTAAGGTGAGATCCTTAACCTTTCAAAATTTTCGGGTTCCAGGGAGACA CACAAGCGAGGGTTTTGTGGTGCCTGGAGCCTGTGTCCTGCCCTGCTACAGTAGTGATTAATAGTGTCATGGTAG CAAATGCAATAGAACGCATTGGGTGTGTGTCTGATCCTGGGTTCTTGTCTCCCCTAAATGCTGCCCCCCAAG TTACTGTATTTGTCTGGGCTTTGTAGGACTTCACTACGTTGATTGCTAGGTGGCCTAGTTTGTGTAAATATAATG TATTGGTCTTTCTCCGTGTTCTTTGGGGGGTTTTGTTTACAAACTTCTTTTTGTATTGAGAGAAAAATAGCCAAAG CATCTTTGACAGAAGGTTCTGCACCAGGCAAAAAGATCTGAAACATTAGTTTGGGGGGGCCCTCTTCTTAAAGTGG GGATCTTGAACCATCCTTTCTTTTGTATTCCCCTTCCCCTATTACCTATTAGACCAGATCTTCTGTCCTAAAAAAC GCTTGGAGTGTCTCCACAACTCTTAAATGATGTATGCAAAAATACTGAAGCTAGGAAAACCCTCCATCCCTTGTT GTCACCCAGGCAGAGGTTGCAGTGAGCTGAGATCGCACCACTGCACTCCAGCCTGGTTACAGAGCAAGACTCTGT AATCCTAAAGTAAAGAGATGCAATTGGGGGCCTTCCATGTAGAAAGTGGGGTCAGGAGGCCAAGAAAGGGAATAT GAATGTATATCCAAGTCACTCAGGAACTTTTATGCAGGTGCTAGAAACTTTATGTCAAAGTGGCCACAAGATTGT TTAATAGGAGACGAACGAATGTAACTCCATGTTTACTGCTAAAAACCAAAGCTTTGTGTAAAATCTTGAATTTAT GGGGCGGGAGGGTAGGAAAGCCTGTACCTGTCTGTTTTTTCCTGATCCTTTTCCCCTCATTCCTGAACTGCAGGA GACTGAGCCCCTTTGGGCTTTGGTGACCCCATCACTGGGGTGTTTTATTTGATGGTTGATTTTGCTGTACTGGG TACTTCCTTTCCCATTTTCTAATCATTTTTTAACACAAGCTGACTCTTCCCTTCCCTTCTCTTTCCCTGGGAAA ATACAATGAATAAATAAAGACTTATTGGTACGC

116/6881 FIGURE 110

 ${\tt ACCTACGTCCGCTGCCGTCGCCGCCGCCACC} \underline{ATG} {\tt CCAAGAGAAAGGCTGAAGGGGATGCTAAGGGAGATAAAG}$ CAAAGGTGAAGGACGAACCACAGAGAAGATCCGCGAGGTTGTCTGCTAAACCTGCTCCTCCAAAGCCAGAGCCCA AGCCTAAAAAGGCCCCTGCAAAGAAGGGAGAAGGTACCCAAAGGGAAAAAGGGAAAAGCTGATGCTGGCAAGG AGGGGAATAACCCTGCAGAAAATGGAGATGCCAAAACAGACCAGGCACAGAAAGCTGAAGGTGCTGGAGATGCCA AGTGAAGTGTGTGCATTTTTGATAACTGTGTACTTCTGGTGACTGTACAGTTTGAAATACTATTTTTTATCAAGT ATTGTTGTTTTTGGGGGAAGGGGCATATGTCACTAATAGAATGTCTCCAAAGCTGGATTGATGTGGAGAAAACAC CTTTCCCTTCTAGTTTTGAGAGACTTCCTCTTGGCTCCCAGGAGGAGGAGTTCCCTGACTTTGACACACATGGCC CATAGACTTAACTCCCTTAAGCCCAGACATCTGTTGAGACCTGACCCCTAGTCATTGGTTACCAGTGTGTCAGGC AATCTGGACTTTCCAGTGATGCCACTGAGATGGCACCTGTCAAAAGAGCAGTGGTTCCATTTCTAGATTGTGGAT CTTCAGATAAATTCTGCCATTTTCACTTCCTGAAAGTCAGGGTCGGCTTGTGAAAAGTTGTTAAACAACA TGCTAAATGTGAAATGTCAACCCTCACTCTAAACTTTCCCTGTTCAGAGCATCAGATGAAGACTTCATTGGGTTT ${\tt TATAGTGGCTTTCTGATTTTTGGTAGTCCATTGAAGAAGGGAGTTTGAAGATTGTTATACTGTTAACGATTGT}$ CTGCCCATGTCCTGCCTGAAATACCATGATTGTTTATGGAAAGTATCTTTAATAAAGCTGGATACAGTTTGGC

 ${\tt MPKRKAEGDAKGDKAKVKDEPQRRSARLSAKPAPPKPEPKPKKAPAKKGEKVPKGKKGKADAGKEGNNPAENGDAKTDQAQKAEGAGDAK}$

FIGURE 112A

CTTGGGGGGAATGAGCCGGGAGAGCCGGGTCCCGAGCCTACAGAGCCGGGAGCAGCTGAGCCGCCGCCCCCCGG GCGCGGAGCCGGACCTGAAGAACTCGAACGGGAACGCGGGCCCTAGGCCCCTGAACAATAACCTCACGGAGC CCCCAGCCTACGGCTTCGGGCAACCCTACGGCCGGAGCCCGTCTGCCGTCGCCGCCGCCGCCGCCGCCGTCTTCC ACCAACAACATGGCGGACAACAAAGCCCTGGCCTGGCAGCGCTGCAGAGCGGCGGCGGGGGGGCCTGGAGCCCT ACGCGGGGCCCCAGCAGAACTCTCACGACCACGGCTTCCCCAACCACCAGTACAACTCCTACTACCCCAACCGCA GCGCCTACCCCCGCCCCGGCCCTACGCGCTGAGCTCCCCGAGAGGTGGCACTCCGGGCTCCGGCGCGGCGG CGGCTGCCGGCTCCAAGCCGCCTCCTCCAGCGCCTCCTCGTCGTCTTCGTCCTTCGCTCAGCAGC GCTTCGGGGCCATGGGGGGGGGGCCCCTCCGCGGCCGGGGGGGAACTCCCAGCCCACCGCCACCCCCACCC TCAACCAACTGCTCACGTCGCCCAGCTCGGCCCGGGGCTACCAGGGCTACCCCGGGGGCGACTACAGTGGCGGGC CCCAGGACGGGGGCGCCAAGGGCCCGGCGGACATGGCCTCGCAGTGTTGGGGGGGCTGCGGCGGCAGCTG GGGGGCAGCCGCTCGCCCGGACCCCTCAGCCATCCAGTCCAATGGATCAGATGGGCAAGATGAGACCTCAGCCAT ATGGCGGGACTAACCCATACTCGCAGCAACAGGGACCTCCGTCAGGACCGCAGCAAGGACATGGGTACCCAGGGC AGCCATACGGGTCCCAGACCCCGCAGCGGTACCCGATGACCATGCAGGGCCGGGCCGCAGAGTGCCATGGGCCGCC TCTCTTATACACAGCAGATTCCTCCTTATGGACAACAAGGCCCCAGCGGGTATGGTCAACAGGGCCAGACTCCAT ATTACAACCAGCAAAGTCCTCACCCTCAGCAGCAGCAGCCCCTACTCCCAGCAACCACCGTCCCAGACCCCTC ATGCCCAACCTTCGTATCAGCAGCAGCCACAGTCTCAACCACCACGGCTCCAGTCCTCTCAGCCTCCATACTCCC ${\tt CCTCGACGCTCTCCCAGCAGGCTGCGTATCCTCAGCCCCAGTCTCAGCAGTCCCAGCAAACTGCCTATTCCCAGC}$ AGCGCTTCCCTCCACCGCAGGAGCTATCTCAAGATTCATTTGGGTCTCAGGCATCCTCAGCCCCTCAATGACCT CAATAGATGACCTCCCCATGGGGACAGAAGGAGCTCTGAGTCCTGGAGTGAGCACATCAGGGATTTCCAGCAGCC CTTCCCCGTCCCCTGTTGGCTCTCCCGCCAGTGTTGCTCAGTCTCGCTCAGGACCACTCTCGCCTGCTGCAGTGC CAGGCAACCAGATGCCACCTCGGCCACCCAGTGGCCAGTCGGACAGCATCATGCATCCTTCCATGAACCAATCAA GCATTGCCCAAGATCGAGGTTATATGCAGAGGAACCCCCAGATGCCCCAGTACAGTTCCCCCCAGCCCGGCTCAG CCTTATCTCCGCGTCAGCCTTCCGGAGGACAGATACACACAGGCATGGGCTCCTACCAGCAGAACTCCATGGGGA GCTATGGTGCCCAGGGGGGTCAGTATGGCCCACAAGGTGGCTACCCCAGGCAGCCAAACTATAATGCCTTGCCCA ATGCCAACTACCCCAGTGCAGGCATGGCTGGAGGCATAAACCCCATGGGTGCCGGAGGTCAAATGCATGGACAGC CTGGCATCCCACCTTATGGCACACTCCCTCCAGGGAGGATGAGTCACGCCTCCATGGGCAACCGGCCTTATGGCC CTAACATGGCCAATATGCCACCTCAGGTTGGGTCAGGGATGTCCCCCCACGGGGGGCATGAACCGGAAAACCC AAGAAACTGCTGTCGCCATGCTGCTGCCCAACTCTATCCAAAACAGGCCGCCAGGCTACCCCAATATGAATC TTGGGGATGTAAAGTTAACTCCAGCCACCAAAATGAACAACAAGGCAGATGGGACACCCAAGACAGAATCCAAAT CCAAGAAATCCAGTTCTTCTACTACAACCAATGAGAAGATCACCAAGTTGTATGAGCTGGGTGGTGAGCCTGAGA GTAGGAAACCTCTGGACCTCTATCGCCTCTATGTGTCTGTGAAGGAGATTGGTTGACTCAGGTCAACAAGA ACAAAAAATGGCGGGAACTTGCAACCAACCTCAATGTGGGCACATCAAGCAGTGCTGCCAGCTCCTTGAAAAAGC

FIGURE 112B

AGTATATCCAGTGTCTCTATGCCTTTGAATGCAAGATTGAACGGGGAGAAGACCCTCCCCCAGACATCTTTGCAG AGACTCCCCAGTCAACCAGCAGTTCCATGGCAGAAGGAGGAGACTTAAAGCCACCAACTCCAGCATCCACCAC ACAGTCAGATCCCCCCATTGCCAGGCATGAGCAGGAGCAATTCAGTTGGGATCCAGGATGCCTTTAATGATGGAA GTGACTCCACATTCCAGAAGCGGAATTCCATGACTCCAAACCCTGGGTATCAGCCCAGTATGAATACCTCTGACA TGATGGGGCGCATGTCCTATGAGCCAAATAAGGATCCTTATGGCAGCATGAGGAAAGCTCCAGGGAGTGATCCCT ATGTGGCGATGGGACCACGACAGCACTATCCCTATGGAGGTCCTTATGACAGAGTGAGGACGGAGCCTGGAATAG GGCCTGAGGGAAACATGAGCACTGGGGCCCCACAGCCGAATCTCATGCCTTCCAACCCAGACTCGGGGATGTATT CTCCTAGCCGCTACCCCCGCAGCAGCAGCAGCAGCAGCAGCACGACGTGATTCCTATGGCAATCAGTTCTCCA CCCAAGGCACCCCTTCTGGCAGCCCCTTCCCCAGCCAGCAGACTACAATGTATCAACAGCAACAGCAGAATTACA AGCGGCCAATGGATGGCACATATGGCCCTCCTGCCAAGCGGCACGAAGGGGAAGTGTACAGCGTGCCATACAGCA CTGGGCAGGGGCAGCCTCAGCAGCAGCAGTTGCCCCCAGCCCAGCCCCAGCCTGCCAGCAGCAACAAGCTGCCC AGCCTTCCCCTCAGCAAGATGTATACAACCAGTATGGCAATGCCTATCCTGCCACTGCCACAGCTGCTACTGAGC GCACCATGTGGCAGGGGCGTAATGACATGACCTATAATTATGCCAACAGGCAGAGCACGGGCTCTGCCCCCAGG GCCCGCCTATCATGGCGTGAACCGAACAGATGAAATGCTGCACACAGATCAGAGGGCCAACCACGAAGGCTCGT GGCCTTCCCATGGCACACGCCAGCCCCCATATGGTCCCTCTGCCCCTGTGCCCCCATGACAAGGCCCCCTCCAT CTAACTACCAGCCCCACCAAGCATGCAGAATCACATTCCTCAGGTATCCAGCCCTGCTCCCCTGCCCCGGCCAA TGGAGAACCGCACCTCTCCTAGCAAGTCTCCATTCCTGCACTCTGGGATGAAAATGCAGAAGGCAGGTCCCCCAG TACCTGCCTCGCACATAGCACCTGCCCCTGTGCAGCCCCCCATGATTCGGCGGGATATCACCTTCCCACCTGGCT GGCGGGTAATGATGTCCCTCAAGTCTGGTCTCCTGGCAGAGAGCACATGGGCATTAGATACCATCAACATCCTGC TGGATCCTGGGAGGTTCAGCAAGGTGTCTAGTCCAGCTCCCATGGAGGTGGGGAAGAAGAAGAAGAACTTCTAG AGCCAGCTTCAGAGAATAGTGAGGAGAAGCTGATCAGTAAGTTTGACAAGCTTCCAGTAAAGATCGTACAGAAGA ATGATCCATTTGTGGTGGACTGCTCAGATAAGCTTGGGCGTGTGCAGGAGTTTGACAGTGGCCTGCTGCACTGGC GGATTGGTGGGGGGGACACCACTGAGCATATCCAGACCCACTTCGAGAGCAAGACAGAGCTGCCTTCCCGGC CTCACGCACCCTGCCCACCAGCCCCTCGGAAGCATGTGACAACAGCAGAGGGTACACCAGGGACAACAGACCAGG AGGGGCCCCCACTGATGGACCTCCAGAAAAACGGATCACAGCCACTATGGATGACATGTTGTCTACTCGGTCTA GCACCTTGACCGAGGATGGAGCTAAGAGTTCAGAGGCCATCAAGGAGAGCAGCAAGTTTCCATTTGGCATTAGCC CAGCACAGAGCCACCGGAACATCAAGATCCTAGAGGACGAACCCCACAGTAAGGATGAGACCCCACTGTGTACCC TTCTGGACTGGCAGGATTCTCTTGCCAAGCGCTGCGTCTGTGTCCAATACCATTCGAAGCCTGTCATTTGTGC CAGGCAATGACTTTGAGATGTCCAAACACCCAGGGCTGCTCTCATCCTGGGCAAGCTGATCCTGCTGCACCACA AGCACCCAGAACGGAAGCAGGCACCACTAACTTATGAAAAGGAGGAGGAACAGGACCAAGGGGTGAGCTGCAACA AAGTGGAGTGGTGGTGGGACTGCTTGGAGATGCTCCGGGAAAACACCTTGGTTACACTCGCCAACATCTCGGGGC CTTCAGCTGAAGCCCAGGACCCCTTTTCCACCCTGGGCCCCAATGCCGTCCTTTCCCCGCAGAGACTGGTCTTGG AAACCCTCAGCAAACTCAGCATCCAGGACAACAATGTGGACCTGATTCTGGCCACACCCCCTTCAGCCGCCTGG AGAAGTTGTATAGCACTATGGTGCGCTTCCTCAGTGACCGAAAGAACCCGGTGTGCCGGGAGATGGCTGTGGTAC TGCTGGCCAACCTGGCTCAGGGGGACAGCCTGGCAGCTCGTGCCATTGCAGTGCAGAAGGGCAGTATCGGCAACC, TCCTGGGCTTCCTAGAGGACAGCCTTGCCGCCACACAGTTCCAGCAGAGCCAGGCCAGCCTCCTCCACATGCAGA ACCCACCCTTTGAGCCAACTAGTGTGGACATGATGCGGCGGGCTGCCCGCGCGCTGCTTGCCTTGGCCAAGGTGG ACGAGAACCACTCAGAGTTTACTCTGTACGAATCACGGCTGTTGGACATCTCGGTATCACCGTTGATGAACTCAT

FIGURE 112C

121/6881 FIGURE 113

CAACAATGTGGACCTGATTCTGGCCACACCCCCTTCAGCCGCCTGGAGAAGTTGTATAGCACTATGGTGCGCTT CCTCAGTGACCGAAAGAACCCGGTGTGCCGGGAGATGGCTGTGGTACTGCTGGCCAACCTGGCTCAGGGGGACAG CCTGGCAGCTCGTGCCATTGCAGTGCAGAAGGGCAGTATCGGCAACCTCCTGGGCTTCCTAGAGGACAGCCTTGC CATGATGCGGCGGCTGCCCGCGCTGCTTGCCTTGGCCAAGGTGGACGAGAACCACTCAGAGTTTACTCTGTA CGAATCACGGCTGTTGGACATCTCGGTATCACCGTTGATGAACTCATTGGTTTCACAAGTCATTTGTGATGTACT GAAACTGACTGTTGCCCTTTATTTATGCAAAACCACCTCAGAATCCAGTTTACCCTGTGCTGTCCAGCTTCTCCC CTTGTCCTCACCTTACTCCCCTCAGGACCCTACCCCACCCTCTTTGAAAAGACAAAGCTCTGCCTACATAGAAGA AGCCAAGAAGTTCGCAGTTGTGAACAGACCCTGTTCACTGGAGAGGCCTGTGCAGTAGAGTGTAGACCCTTTCAT GTACTGTACTGTACACCTGATACTGTAAACATACTGTAATAATAATGTCTCACATGGAAACAGAAAACGCTGGGT AAGTATCATGTGTGAACCTACAACACCCTGACCTCTTTCTCTCCTCCTTGATTGTATGAATAACCCTGAGATCAC $\tt CACATACCCTTGGATCCCCACAGTTTGGTCCTCCCCAGCTACCCCTTTATAGTATGACGAGTTAACAAGTTGG$ TGACCTGCACAAAGCGAGACACAGCTATTTAATCTCTTGCCAGATATCGCCCCTCTTGGTGCGATGCTGTACAGG TTGTTTCTTTCTAATCGAGGTGTGAAAAAGTTCTAGGTTCAGTTGAAGTTCTGATGAAGAAACACAATTGAGAT TTTTTCAGTGATAAAATCTGCATATTTGTATTTCAACAATGTAGCTAAAACTTGATGTAAATTCCTCCTTTTTTT CCTTTTTTGGCTTAATGAATATCATTTATTCAGTATGAAATCTTTATACTATATGTTCCACGTGTTAAGAATAAA **TGTACATTAAATCTTGGT**

FIGURE 114

ATTGGTCCCAGGCAGCAGTTAGCCCGCCGCCCGCCTGTGTGTCCCCAGAGCCATGGAGAGAGCCAGTCTGATCCA GAAGGCCAAGCTGGCAGAGCAGGCCGAACGCTATGAGGACATGGCAGCCTTCATGAAAGGCGCCGTGGAGAAGGG CGAGGAGCTCTCCTGCGAAGAGCGAAACCTGCTCTCAGTAGCCTATAAGAACGTGGTGGGCGGCCAGAGGGCTGC GTACCGGGTCTTCTACCTGAAGATGAAGGGTGACTACTACCGCTACCTGGCCGAGGTGGCCACCGGTGACGACAA GAAGCGCATCATTGACTCAGCCCGGTCAGCCTACCAGGAGGCCATCGGACATCAGCAAGAAGGAGATGCCGCCCAC CAACCCCATCCGCCTGGGCCTGGACTTTTCCGTCTTCCACTACGAGATCGCCAACAGCCCCGAGGAGGC CATCTCTCTGGCCAAGACCACTTTCGACGAGGCCATGGCTGATCTGCACACCCTCAGCGAGGACTCCTACAAAGA CAGCACCCTCATCATGCAGCTGCTGCGAGACAACCTGACACTGTGGACGGCCGACAACGCCGGGGAAGAGGGGGG GCCGAGAGGACTAGTATGGGGTGGGAGGCCCCACCCTTCTCCCCTAGGCGCTGTTCTTGCTCCAAAGGGCTCCGT ${\tt GGAGAGGGACTGGCAGAGCTGAGGCCACCTGGGGCTGGGGATCCCACTCTTCTTGCAGCTGTTGAGCGCACCTAA}$ ${\tt CCACTGGTCATGCCCCCACCCCTGCTCTCCGCACCCGCTTCCTCCCGACCCCAGGACCAGGCTACTTCTCCCCTC}$ CTCTTGCCTCCCTCCTGCCCCTGCTGCCTCTGATCGTAGGAATTGAGGAGTGTCCCGCCTTGTGGCTGAGAACTG AGACCGAGATTGAGGGAAAGCATGTCTGCTGGGTGTGACCATGTTTCCTCTCAATAAAGTTCCCCTGTGACACTC

MERASLIQKAKLAEQAERYEDMAAFMKGAVEKGEELSCEERNLLSVAYKNVVGGQRAAWRVLSSIEQKSNEEGSE EKGPEVREYREKVETELQGVCDTVLGLLDSHLIKEAGDAESRVFYLKMKGDYYRYLAEVATGDDKKRIIDSARSA YQEAMDISKKEMPPTNPIRLGLALNFSVFHYEIANSPEEAISLAKTTFDEAMADLHTLSEDSYKDSTLIMQLLRD NLTLWTADNAGEEGGEAPQEPQS

CCGGAAGTCGAGTTAGTCTAGTTAGTATCGGCCTGTTATCTCCTTTTGCGCGACACGGTCTCAGCTGTTCCGCCT ${\tt ACCTGCCCGTTTTCCCTGTGAGTTGACCTGCTCCGGGCCGGGGCCGCCA} \underline{{\tt ATG}} {\tt GCAGGGGCCGCTCCGACCACG}$ CGCGCGCTGGGCCGCGTGGCGGTGAACCTGGACCCGGCCAACGAGGGGCTGCCGTACGAGTGTGCCGTG GACGTGGGCGAGCTGGGGGGCTGGGCGACGTGATGGACGCGCTGCGCCTGGGGCCCAACGGCGGCCTGCTCTAC TGCATGGAGTACCTGGAAGCCAACCTGGACTGGCTGCGTGCCAAGCTCGACCCCCTCCGCGGCCACTACTTCCTC TTCGACTGCCCAGGCCAGGTGGAGCTCTGCACGCATCACGGCGCCTTGCGCAGCATCTTCTCCCAAATGGCGCAG TGGGACCTCAGGCTGACTGCCGTCCACCTCGTGGATTCTCACTACTGCACAGACCCTGCCAAGTTCATTTCAGTA CTGTGTACCTCCCTGGCCACCATGCTGCACGTGGAACTGCCCCACATCAACCTCCTTTCCAAGATGGACCTCATT GAGCATTATGGGAAGCTGGCCTTCAACCTGGACTACTACACAGAGGTTCTGGACCTCTCCTACCTGCTTGACCAC CTGGCTTCTGACCCTTTCTTCCGCCACTACCGCCAGCTCAATGAGAAGCTAGTGCAGCTCATCGAAGACTATAGC CTTGTCTCCTTTATCCCTCTCAACATCCAGGACAAGGAGAGCATCCAGCGAGTCCTGCAGGCTGTGGATAAAGCC AATGGATACTGTTTCAGAGCCCAAGAGCAGCGAAGCTTGGAAGCCATGATGTCTGCCGCAATGGGAGCCGACTTC CAGCTGTAGCAACAAGGTGGACCCTGGAGAGCAGGATGCATAATCCAGCACTGGGGAAAGTGGAGGCTCCTGATG CAGGCTGCAGACCCAAGAGCAAGTCCTCCCAGCCAGAGCTGGCGGGCTGGCAAGGGGGATATTCAGCTCTGCAAAG GACTTCTGGCCAAAAAGCCAGACATGGTGCCAAGCAGAACACCCCCCATACTGTCAGTGGTGTCCGTGAGCTCTG GGCCCTGCCACCAGAAAGTCGAGCACTGGTCCTAGTCAGGCTGTGATGAAATGTGCTACAATACAAGAGTTTATT TTCT

125/6881 FIGURE 117

 $\label{thm:constrated} $$ MAGAAPTTAFGQAVTGPPGSGKTTYCLGMSEFLRALGRRVAVVNLDPANEGLPYECAVDVGELVGLGDVMDALRL$$ GPNGGLLYCMEYLEANLDWLRAKLDPLRGHYFLFDCPGQVELCTHHGALRSIFSQMAQWDLRLTAVHLVDSHYCT DPAKFISVLCTSLATMLHVELPHINLLSKMDLIEHYGKLAFNLDYYTEVLDLSYLLDHLASDPFFRHYRQLNEKL$$ VQLIEDYSLVSFIPLNIQDKESIQRVLQAVDKANGYCFRAQEQRSLEAMMSAAMGADFHFSSTLGIQEKYLAPSN QSVEQEAMQL$$$

126/6881 FIGURE 118

TAGAGTCGTTGGGCCCGGCGCGCCGCAGGAGCGTAGAGAGCGCGGGACTAGAGTGCAGAGCTCCGGGACGTGG GGAGAAGAAGGGATGGCAGAAGACTTATCACACAGACTTTCAGCCACCACAATCAGCTGGCACAGAAGACCCGG ${\tt AAGTCAGAGACCTCAGGGCCCCAGATCAAGGAGCTAACTGATGAAGAGGCAGAGAGGCTGCAGCTAGAGATTGAC}$ ${\tt CAGAAAAAGGATGCAGAAATCATGAGGCCCAGCTCAAGAACGGCAGCCTTGACTCCCCAGGGAAGCAGGATACT}$ GAGGAAGATGAGGAGGAAGATGAGAAGGAAAAGGAAAACTGAAGCCCAACCTAGGCAACGGGGCAGACCTGCCC AATTACCGCTGGACCCAGACCCTGTCGGAGCTGGACCTGGCGGTCCCTTTCTGTGTGAACTTCCGGCTGAAAGGG GAGCTCTACAATGAAGTGAAGGTGGAGGAGGAGCTCGTGGCTCATTGAGGACGGCAAGGTGGTGACTGTGCATCTG GAGAAGATCAATAAGATGGAGTGGTGGAGCCGCTTGGTGTCCAGTGACCCTGAGATCAACACCAAGAAGATTAAC CCTGAGAATTCCAAGCTGTCAGACCTGGACAGTGAGACTCGCAGCATGGTGGAAAAGATGATGTATGACCAGCGA CAGAAGTCCATGGGGCTGCCAACTTCAGACGAACAGAAGAACAGGAGATTCTGAAGAAGTTCATGGATCAACAT $\texttt{CCGGAGATGGATTTTCCAAGGCTAAATTCAAC} \underline{\textbf{TAG}} \texttt{CCCCTGTTTTTCCTCCCTGAACTCTTGGGGCTGAGCTG}$ ${\tt CCAGGCACAGGTCCCGGGGCATCAGGAGAAAGGCTGGGTCTTGGGACCTTGTCCTCCCCAGTTGGCCTACTGT}$

127/6881 FIGURE 119

$$\label{thm:continuous} \begin{align} MGGEQEEERFDGMLLAMAQQHEGGVQELVNTFFSFLRRKTDFFIGGEEGMAEKLITQTFSHHNQLAQKTRREKRA RQEAERREKAERAARLAKEAKSETSGPQIKELTDEEAERLQLEIDQKKDAENHEAQLKNGSLDSPGKQDTEEDEE EDEKDKGKLKPNLGNGADLPNYRWTQTLSELDLAVPFCVNFRLKGKDMVVDIQRRHLRVGLKGQPAIIDGELYNE VKVEESSWLIEDGKVVTVHLEKINKMEWWSRLVSSDPEINTKKINPENSKLSDLDSETRSMVEKMMYDQRQKSMG LPTSDEQKKQEILKKFMDQHPEMDFSKAKFN$$

FIGURE 120

 ${\tt CCTGGTATGATTCCATCCTGAGCGGCTGTTCTCTTGAGCAGCGTTCATTTATCTCCGTCTGCCTTCTGTCCCACC}$ ${\tt TAAGTGTGCCGCCACCCAATAGAAGATTCG} \underline{{\tt ATC}} {\tt GACATGGACATGAGCCCCCTGAGGCCCCCAGAACTATCTTT}$ TCGGTTGTGAACTAAAGGCTGACAAAGATGATCACTTTAAGGTGGATAATGATGAAAATGAGCACCAGTTATCTT TAAGAACGGTCAGTTTAGGGGCTGGTACAAAGGATGAATTGCACATTGTTGAAGCAGAGGCAATGAATTACAAAG GCAGTCCAATTAAAGTAACACTGGCAACTTTGAAAATGTCTGCACAGCCAACAGTTTCCCTTGGGGGCTTTGAAA TAACACCACCAGTGGTCTTAAGATTTAAGTGTGGTTCAGGGCCAGTGCATATTAGTGGACAGCACTTAGTAGCTG ${\tt TGGAGGAAGATGCAGAAGATGAAGAGGAGGAGGATGTGAAACTCTTAAGTATATCTGGAAAGCGGTCTG}$ CCCCTGGAGGTGGTAGCAAGGTTCCACAGAAAAAAGTAAAACTTGCTGTTGATGAAGATGATGATGATGATGATGATG ATGATGATGATGATGATGATGAGGAAGCTGAAGAAAAGTGCCAGTGAAGAAAGGACAAGAATCCTTCA GTATAGAAAAAGGGGGTTCTCTCCCAAAGTGGAAGCCGAGTTCATCAATTTTGTGAAGAATTGCTTCTGGATGA $\tt CTGACCAAGAGGCTATTCAAGATCTCTGGCAGTGGAGGAAGTCTCCT\underline{TAA}\underline{G}AAAATAGTTTCAACAATTTGTTAA$ AAATTTTCCATCATATTTCATTTCTGTAACAGTTGATATCTGGCTGTCCTTTTTATAATGCAGAGTGAGAACTTT CCCTACCGTGTTTGATAAATGTTGTCCAGGTTCCATTGCCAAGAATGTGTTGTCCAAAATGCCTGTTTAGTTTTT AAAAA

MDMDMSPLRPQNYLFGCELKADKDDHFKVDNDENEHQLSLRTVSLGAGTKDELHIVEAEAMNYKGSPIKVTLATL KMSAQPTVSLGGFEITPPVVLRFKCGSGPVHISGQHLVAVEEDAESEDEEEEDVKLLSISGKRSAPGGGSKVPQK KVKLAVDEDDDDDDDDDDDDDDDDDEEAEEKVPVKKGQESFKTQEKTPKTPKGSSSVEDIKAKMQASIEKGGSLPKV EAEFINFVKNCFWMTDQEAIQDLWQWRKSP

FIGURE 122

AGCTGCTGGCTGGCTGTTGAGTCAGCCTTCTTCCCTCACGGCTCTTCTCCCCGGTCCCTGAAACTCGGCTG GGGCACAGCCCAGCTGATGCCCCAGAGGGGCCACCCATCGCAAGAGGGGCTTTGGGCTCTGCCCTCCCCCA TGGCGCATGGGCCAAAGCCTGAGACTGAAGGACTGTTGGACCTCAGCTTCCTGACAGAGGAGGAGCAGGAGGCCCA TGGCAGACCCTGGGCAGCTGAAGATCCTGACAGGGGACTGGTTCCAGGAAGCACGCTCCCAGCGGCACCAATG CCCACTTCGGCTCTGACCTTGTCCGAGCGTCTATGCGCAGGAAGAAGAGCACCAGGGGAGACCAGGCTCCAGGCC ACGACAGGGAGGCTGAGGCTGCTGAAAGAGAAGGAAGGGGCCCAGGCCCAGGCTCACCATTGATGAGGCCC CTCAGGAGAGGCTCAGGGAGACTGAGGCTTCAGATCCTGAGGAGGCGTCCCAGGCCCAGGAAGATCCTGGCCAAG GAGACCAACAGGTCTGTGCCGAGGAGGCTGACCCGGAGCTGGAGCCCGCGTCGGGGGGAGAGCAGGAGCCGCGGC CCCAGCAAGCCCAGACCAAGGCCGCGTCCCAGATCCTGGAGAATGGGGAGGGGCCCGGGGCCCGACCCCTCTC TCGACCGCATGCTCAGCAGCAGCTCCTCGGTGTCCAGCCTTAACTCCTCCACGCTGAGCGGCAGCCAGATGAGCC TGTCAGGCGACGCGGAGGCGGTGCAGGTCCGCGGCTCCGTGCACTTCGCGCTGCACTACGAGCCGGGCGCCGCCG GCTACCTCCCGGATAAGCAGAGCAAGCGCAAGACGGCGTGAAGAAACGGAATCTGAATCCGGTTTTCAACG GCCTGGGTCGCAACATCTTTCTGGGCGAAGTTGAAGTGCCCCTGGACACGTGGGACTGGGGCTCTGAGCCCACCT GGCTCCCCTGCAGCCCGGGTCCCACCCTCTCCCGACGACCTTCCGAGCCGCGGGTTACTCGCCCTGTCCCTCA AGTACGTCCCCGCCGGCTCCGAGGGCCCAGGACTGCCCCCGAGCGGGGAGCTGCACTTCTGGGTGAAGGAGGCTC GGGACCTCCTGCCGCTGCGGCAGGATCCCTGGACACTTACGTACAATGCTTCGTGCTGCCTGATGACAGCCAGG CCAGCCGCCAGCGTACAAGGGTTGTGCGACGCAGCCTCAGCCCTGTGTTCAATCACACCATGGTGTACGATGGCT TTGGGCCTGCTGACCTGCGCCAGCTTTGTGCCGAGCTCTCCCTCTGGGACCATGGGGCCCTGGCCAACCGCCAGC AGGAGAAGCAGCTGTGGCAAGCCCTCCTGGAGCAGCCGTGCGAATGGGTGGATGGCCTTCTACCCCTCAGAACCA ACCTGGCCCCCAGGACG<u>TAG</u>CCCCACCAAGCCTCTCTCTCTGGACCCCCATCTCAGGGCCTGCCCTTGGCTAAAG TCAATAAAGTCTATTCTAAGAGC

131/6881 FIGURE 123

MPQRGHPSQEGLWALPSLPMAHGPKPETEGLLDLSFLTEEEQEAIAGVLQRDARLRQLEEGRVSKLRASVADPGQ
LKILTGDWFQEARSQRHHNAHFGSDLVRASMRRKKSTRGDQAPGHDREAEAAVKEKEEGPEPRLTIDEAPQERLR
ETEASDPEEASQAQEDPGQGDQQVCAEEADPELEPASGGEQEPRPQQAQTKAASQILENGEEAPGPDPSLDRMLS
SSSSVSSLNSSTLSGSQMSLSGDAEAVQVRGSVHFALHYEPGAAELRVHVIQCQGLAAARRRRSDPYVKSYLLPD
KQSKRKTAVKKRNLNPVFNETLRYSVPQAELQGRVLSLSVWHRESLGRNIFLGEVEVPLDTWDWGSEPTWLPLQP
RVPPSPDDLPSRGLLALSLKYVPAGSEGAGLPPSGELHFWVKEARDLLPLRAGSLDTYVQCFVLPDDSQASRQRT
RVVRRSLSPVFNHTMVYDGFGPADLRQACAELSLWDHGALANRQLGGTRLSLGTGSSYGLQVPWMDSTPEEKQLW
QALLEQPCEWVDGLLPLRTNLAPRT

FIGURE 124

ATCCCGTTAGTAACGAGGAACATCGAGCCAAGGCACCTGTGCCGTCAGACGTTGCCTAGCGTTAGAAGCGAGCTG GAATGCGTGACCAACATCACCCTGGCAAATGTCATCCGACAGCTGGGCAGCCTGAGTAAATATGCAGAGGACATT CAGGTTAAAGTCACTCAGCTGGATCCCAAGGAAGAAGAAGTGTCACTGCAAGGAATCAACACCCGAAAAGCCTTC AGAAGTTCCACCATTCAAGACCAGAAGCTTTTTGACAGAAACTCTCTCCCAGTGCCTGTCTTAGAAACATACAAT ACCTGTGATACTCCTCCCCCTCTCAACAATCTTACCCCTTACAGGGACGATGGAAAAGAGGGCACTCAAATTCTAC ACAGACCCTTCATACTTCTTTGATCTTTGGAAGGAGAAGATGCTGCAGGACACCAAGGATATCATGAAAGAGAAG AGAAAGCACAGGAAAGAAAAGAAAGATAATCCAAATCGAGGGAATGTAAAACCCACGTAAAATCAAGACACGTAAG GAAGAGTGGGAGAAATGAAGATGGGGCAAGAATTTGTGGAGTCCAAAGAAAAGCTGGGGACTTCTGGGTATCCA CCCACTTTGGTGTACCAGAATGGCAGCATTGGCTGTTGAAAACGTGGATGCAAGTAGCTATCCGCCACCACCA CAGTCAGACTCTGCTTCTTCACCTTCTCCTTCCTCCGAGGACAACTTGCCTCCTCCACCAGCAGAATTCAGT TACCCAGTGGACAACCAAAGAGGATCTGGTTTGGCTGGACCCAAAAGATCCAGTGTGGTCAGCCCAAGCCATCCA CCACCAGCTCCTCTAGGCTCTCCACCAGGCCCTAAACCCGGGTTTGCTCCACCACCTGCCCCTCCGCCACCT TCACCCCCATCTTTCCCACCTCACCTGATTTTGCTGCCCCTCCACCTCCTCCACCACCACCAGCAGCTGACTAC GGGCCCCTCCTCCCCCTTTCACTGGTGCAGATGGCCAGCCTGCTATACCACCACCGCTTTCTGATACCACCAAG CCCAAGTCCTCCTTGCCTGCCGTGAGCGATGCCCGTAGCGACCTGCTTTCAGCCATCCGTCAAGGTTTTCAGCTG $\tt CGCAGGGTTGAGGAGCAGCGGGAACAAGAGAGAGCGGGATGTTGTGGGCCAATGACGTGGCCACCATCTTGTCTCGT$ CGCATTGCTGTTGAGTACAGTGACTCAGAAGATGACTCCTCTGAATTTGATGAGGACGACTGGTCCGAT<u>TAA</u>

133/6881 FIGURE 125

MPLVTRNIEPRHLCRQTLPSVRSELECVTNITLANVIRQLGSLSKYAEDIFGELFTQANTFASRVSSLAERVDRL
QVKVTQLDPKEEEVSLQGINTRKAFRSSTIQDQKLFDRNSLPVPVLETYNTCDTPPPLNNLTPYRDDGKEALKFY
TDPSYFFDLWKEKMLQDTKDIMKEKRKHRKEKKDNPNRGNVNPRKIKTRKEEWEKMKMGQEFVESKEKLGTSGYP
PTLVYQNGSIGCVENVDASSYPPPPQSDSASSPSPSFSEDNLPPPPAEFSYPVDNQRGSGLAGPKRSSVVSPSHP
PPAPPLGSPPGPKPGFAPPPAPPPPPPMIGIPPPPPPVGFGSPGTPPPPSPPSFPPHPDFAAPPPPPPPPAADY
PTLPPPPLSQPTGGAPPPPPPPPPPFTGADGQPAIPPPLSDTTKPKSSLPAVSDARSDLLSAIRQGFQL
RRVEEQREQEKRDVVGNDVATILSRRIAVEYSDSEDDSSEFDEDDWSD

134/6881 FIGURE 126

AGAATTGGGCTCCAGGTCTCTGACCCCTCCCAAGGATCATGCCGCAGCCCCACTGACCCAGGAGTAGGGGCCTAA GGGCAGGGAACCTGGAATGGGCTGTGTTCTGCAAGAAATTGGAGCCGGTGGCCACGGCCAAGGAGGATGCTGG CCTGGAAGGGGACTTCAGAAGCTACGGGGCAGCAGACCACTATGGGCCTGACCCCACTAAGGCCCGGCCTGCATC CTCATTTGCCCACATCCCCAACTACAGCAACTTCTCCTCTCAGGCCATCAACCCTGGCTTCCTTGATAGTGGCAC CATCAGGGGTGTCAGGGATTGGGGTGACCCTGTTCATTGCCCTGTATGACTATGAGGCTCGAACTGAGGATGA CCTCACCTTCACCAAGGGCGAGAAGTTCCACATCCTGAACAATACTGAAGGTGACTGGTGGGAGGCTCGGTCTCT CAGCTCCGGAAAAACTGGCTGCATTCCCAGCAACTACGTGGCCCCTGTTGACTCAATCCAAGCTGAAGAGTGGTA CTTTGGAAAGATTGGGAGAAAGGATGCAGAGAGGCAGCTGCTTTCACCAGGCAACCCCCAGGGGGCCTTTCTCAT TCGGGAAAGCGAGACCACCAAAGGTGCCTACTCCCTGTCCATCCGGGACTGGGATCAGACCAGAGGCGATCATGT GAAGCATTACAAGATCCGCAAACTGGACATGGGCGGCTACTACATCACCACACGGGTTCAGTTCAACTCGGTGCA GGAGCTGGTGCAGCACTACATGGAGGTGAATGACGGGCTGTGCAACCTGCTCATCGCGCCCTGCACCATCATGAA GCCGCAGACGCTGGGCCTAGGACGCCTGGGAGATCAGCCGCAGCTCCATCACGCTGGAGCGCCGGCTGGG CACCGGCTGCTTCGGGGATGTGTGGCTGGGCACGTGGAACGCCACTAAGGTGGCGGTGAAGACGCTGAAGCC GGGCACCATGTCCCCGAAGGCCTTCCTGGAGGAGGCGCAGGTCATGAAGCTGCTGCGGCACGACAAGCTGGTGCA GCTGTACGCCGTGGTGTCGGAGGAGCCCATCTACATCGTGACCGAGTTCATGTGTCACGGCAGCTTGCTGGATTT TCTCAAGAACCCAGAGGGCCAGGATTTGAGGCTGCCCCAATTGGTGGACATGGCAGCCCAGGTAGCTGAGGGCAT GGCCTACATGGAACGCATGAACTACATTCACCGCGACCTGAGGGCAGCCAACATCCTGGTTGGGGAGCGGCTGGC GTGCAAGATCGCAGACTTTGGCTTGGCGCGTCTCATCAAGGACGATGAGTACAACCCCTGCCAAGGTTCCAAGTT CCCCATCAAGTGGACAGCCCCAGAAGCTGCCCTCTTTGGCAGATTCACCATCAAGTCAGACGTGTGGTCCTTTGG GATCCTGCTCACTGAGCTCATCACCAAGGGCCGAATCCCCTACCCAGGCATGAATAAACGGGAAGTGTTGGAACA GGTGGAGCAGGGCTACCACATGCCGTGCCCTCCAGGCTGCCCAGCATCCCTGTACGAGGCCATGGAACAGACCTG ACCACAGTACCAGCCCGGGGATCAGACATAGCCTGTCCGGGCATCAACCCTCTCTGGCGGTGGCCACCAGTCCTT CGTGGCTGCTCTGACACCACCTAGGGCAACCTACTTGTTTTACAGATGGGGCAAAAGGAGGCCCAGAGCTGATCT CTCATCCGCTCTGGCCCCAAGCACTATTTCTTCCTTTTCCACTTAGGCCCCTACATGCCTGTAGCCTTTCTCACT TCACTGCTTTCCTACTCTCTTTTATCTCACTCTAGTCCAGGTGCCAAGAATTTCCCTTCTACCCTCTATTCTCT TGTGTCTGTAAGTTACAAAGTCAGGAAAAGTCTTGGCTGGACCCCTTTCCTGCTGGGTGGATGCAGTGGTCCAGG ACTGGGGTCTGGGCCCAGGTTTGAGGGAGAAGGTTGCAGAGCACTTCCCACCTCTGAATAGTGTGTATGTGTT GGTTTATTGATTCTGTAAATAAGTAAAATGACAATATGAATCCTC

GGCACGAGGCTTCGTAAAGATGGCCGCGGAGGCTTTTGGAGCCAACTGGGAGCGCAGTACGCGTTTTCTGGAGCA TGGGCAGAGGAGACAGGAACAAGCGTAGCATCCGTGAGCACCGGATTGGCTGAAGCGAGCACCCCGGGAGCTGACT GGCTCCGCCATTCGCGGGAAGGCGTTTGTGGTGCCAGAGAAAAGTAGCCAGAGCGGCGCAGTGGCGGCCGCGTTC TGTGGTTTTCCGCTATTCCCCCAGACCCGCACCTTCTCGGCCTCTTTGCGGAGAATCGTGACCAAGATGTGAAC AGTGGATTCGAAAGCTATGGCAGCTCCTCATACGGGGGAGCCGGCGGCTACACGCAGTCCCCGGGGGGCTTTGGA TCGCCCGCACCTTCTCAAGCCGAAAAGAAATCAAGAGCCCGAGCCCAGCACATTGTGCCCTGTACTATATCTCAG CTGCTTTCTGCCACTTTGGTTGATGAAGTGTTCAGAATTGGGAATGTTGAGATTTCACAGGTCACTATTGTGGGG ATCATCAGACATGCAGAGAGGCTCCAACCAACATTGTTTACAAAATAGATGACATGACAGCTGCACCCATGGAC GTTCGCCAGTGGGTTGACACAGATGACACCAGCAGTGAAAACACTGTGGTTCCTCCAGAAACATATGTGAAAGTG GCAGGCCACCTGAGATCTTTTCAGAACAAAAAGAGCCTGGTAGCCTTTAAGATCATGCCCCTGGAGGATATGAAT GGGAGAGCACCTATCAGCAATCCAGGAATGAGTGAAGCAGGGAACTTTGGTGGGAATAGCTTCATGCCAGCAAAT GGCCTCACTGTGGCCCAAAACCAGGTGTTGAATTTGATTAAGGCTTGTCCAAGACCTGAAGGGTTGAACTTTCAG CACATCTATTCTACTGTGGATGATGACCATTTTAAATCCACAGATGCAGAA<u>TAA</u>CTGGATCTAACTGGGTACCTG AGATATTTTACAGCTGGACCTAGTTTCACAATCTGTTGTCTCCAGCTCTGCATATGTCTGGCCAGGGGGCTTCTA GGAAGTAGGTTTCATCTATCAAATGTCTCCTCTGACTTCCTTTTGAAACTTACTGCTCTTCTGTTTTATTTTGTT TTGTTTGAAGCTCAGAGGGAGATGGGCAATTGACAGGGATGCAATCCAGGGTGGGATTTCTTGAGGAAGTTACAA ATAAGCTTGTTACAACATCAAGATAGATGGAATTGGAAGGATGCTACCAGGAGAGTACTTACATAGTGCTCAGGA GTTTCTCTTTAAAATGTTTACTGCTGAAAGATGAGCAGGACCAGGGCGTTATAGGCAGAGCCCTAGCCGAGAA ACCTGCTGGCCTCTGCCTGTTTTCATTTCCCACTTTGGTTGTGTGGCATTACTTTCAGAATTGCACTTTCCTGCT TGTCATGACTTTTTGACACACTTGCCATGACGTGTGTTTTCTGTGAACATGAAGTTCTGCGGTAGTGCCTCCAGGG **TGTAAAAAAAAAAAAAAAAA**

 $\label{thm:constraint} $$\operatorname{MWNSGFESYGSSYGGAGGYTQSPGGFGSPAPSQAEKKSRARAQHIVPCTISQLLSATLVDEVFRIGNVEISQVT}$$ ivgiirhaekaptnivykiddmtaapmdvrqwvdtddtssentvvppetyvkvaghlrsfqnkkslvafkimple dmneftthilevinahmvlskansqpsagrapisnpgmseagnfggnsfmpangltvaqnqvlnlikacprpeglnfqdlknqlkhmsvssikqavdflsneghiystvdddhfkstdae$

FIGURE 130

TCCAGCACCAAAGCGGCCGTTCTCGGATTCCGGAGCGTTCTGGAGCCCCGAGAGACGCCCCGGGGTTCTAGAAGC ${\tt GCCGCGACCGGGTCCTGGCGCACC} \underline{{\tt ATG}} {\tt ATCGTGGCGGACTCCGAGTGCCGCGCAGAGCTCAAGGACTACCTGC}$ GGTTCGCCCCGGGCGCGTCGGCGACTCGGGCCCCGGAGAGGAGCAGAGGGAGAGCCGGGCTCGGCGAGGCCCTC GAGGGCCCAGCGCCTTCATCCCCGTGGAGGAGGTCCTTCGGGAGGGGGCTGAGAGCCTCGAGCACCACCTGGGGC TGGAGGCACTGATGTCCTCTGGGCGAGTAGACAACCTGGCAGTGGTGATGGGCCTGCACCCTGACTACTTTACCA GCTTCTGGCGCCTGCACTACCTGCTGCTGCACACGGATGGTCCCTTGGCCAGCTCCTGGCGCCACTACATTGCCA TCATGGCTGCCGCCCATCAGTGTTCTTACCTGGTAGGCTCCCACATGGCCGAGTTTCTGCAGACTGGTGGTG ACCCTGAGTGGCTGCTGGGCCTCCACCGGGCCCCCGAGAAGCTGCGCAAACTCAGCGAGATCAACAAGTTGCTGG CGCATCGGCCATGGCTCATCACCAAGGAACACATCCAGGCCTTGCTGAAGACCGGCGAGCACACTTGGTCCCTGG CCGAGCTCATTCAGGCTCTGGTCCTGCTCACCCACTGCCACTCGCTCTCCTCCTTCGTGTTTGGCTGTGGCATCC TCCCTGAGGGGGATGCAGATGGCAGCCCTGCCCCCAGGCACCTACACCCCCTAGTGAACAGAGCAGCCCCCCAA GCAGGGACCCGTTGAACAACTCTGGGGGCTTTGAGTCTGCCCGCGACGTGGAGGCGCTGATGGAGCGCATGCAGC AGCTGCAGGAGAGCCTGCTGCGGGATGAGGGGACGTCCCAGGAGGAGATGGAGAGCCGCTTTGAGCTGGAGAAGT CAGAGAGCCTGCTGGTGACCCCCTCAGCTGACATCCTGGAGCCCTCTCCACACCCAGACATGCTGTGCTTTGTGG ATACCTGGGAAGACCATGGCTACTCGCTGATCCAGCGGCTTTACCCTGAGGGTGGGCAGCTGCTGGATGAGAAGT TCCAGGCAGCCTATAGCCTCACCTACAATACCATCGCCATGCACAGTGGTGTGGACACCTCCGTGCTCCGCAGGG ${\tt CCATCTGGAACTATATCCACTGCGTCTTTGGCATCAGATATGATGACTATGATTATGGGGAGGTGAACCAGCTCC}$ TGGAGCGGAACCTCAAGGTCTATATCAAGACAGTGGCCTGCTACCCAGAGAAGACCACCCGAAGAATGTACAACC TCTTCTGGAGGCACTTCCGCCACTCAGAGAAGGTCCACGTGAACTTGCTGCTCCTGGAGGCGCGCATGCAAGCCG CCCCACAAGGACTTCTCTGTCTGGAGACAGCCCCAGACCCTTTTGTGTCCCATGCCCACCCTCCCCACGCTGCAG GACTCTGGGATCTCAGCCCTGCTCCTGGGAGCTGGAAGAGCACTTGGAGATCCTAAGGGACCACACCCTTCCTCC TTCCCCTGCCCACAGAGGCAGAGGGCACAGGAAAGAAGCCGGGCCAAGCTCGGAATTAATGTGCCACAAGTGTTG TGGCCTTCCTGAACTGGGAAGTCCCTGGCTGGCCCCCGGGGGAGAGGGGCCAAATGCCTCCGGGACTGACACTCCA GGCAGCTTTGCCTTCTCCCCTGTCATTTCCAGATTTCATTACCTCCTACTTGCCATTCACCCATCAATGTGAA AGTCAGGGTCACAGCTGGTCTGTGTCCCAGTTCCCTAAAAGCCTGTTCTGTTGGGCAGCCTGAGGCTGTTGCCC GAATCCTAGTTCAGTTTTTGACTTCCTTTGCCCTTTTTCCCTTTTCTCCATGCTTAATGGTGTGAGGCGTCAGG AGAGAGGCCAAGTACATAAAAAAAAAAAAAAGCAGATTATCTCTAGAGAGTTTGAGCCTTTGCTGGTCACATTGC CTTCTGAAGAGGAGGAGTATTAGATTATAAATCCTCTTTATTTTGGTCCTTTATGCTTGAGGTTCCAACCTGGA GCCACAGTGTGTGAGAGGAGGAGGAGAGATTCTGTTCTCCCAGAGCTGCACCTGCCTCGCAGAGGCCAGC ACCCCACTCTCCTGCCTCCAGTGGCCCTGCCGCAGATGTCTCCCAAAAAGTTGAGCCTTTCTAGATGGCTTAGGT TCTGAAGCTGCCCCTGGGATTCTCAGGCCAACCTGCCAACAGCAAGCGGATTTTCTTGCAAGATCAGGGACCCCA TTTCTGCAGCCAGTGTCTCCTGGGTGCCTTCTGAGGACTCCCACCCCCATCCCAGTATCTCATCTGTCCCCTCTC $\tt CTGGGGCTTAAGTGGGTTGCTTCCAGGCAGAAGCAGCCAAGGACCGATTCCAGGCACTTTCTGTAGCAAATGACT$ GTGAATTACGACTTCTTGCCCTTCTTCTAGCAGTCTGTGCCTCCTCTGACCAGTTTGGAGGGCACTGAAGA AAGGCAAGGGCCGTGCTGCTGGCGGGGGGGAGAGGAGGAGCCTGGCCAGTGTGCCACATTAAATACCCGTGCA CCAGTGTTCAAGTGCAGAAATCTTTGGCTTTGCTACCAGTTCCATATGATGAGAAATAAACGTTCGCTGAGGTTT TGTTTCATAAAAAAAAAAAAAAAAAAAAAA

MIVADSECRAELKDYLRFAPGGVGDSGPGEEQRESRARRGPRGPSAFIPVEEVLREGAESLEQHLGLEALMSSGR VDNLAVVMGLHPDYFTSFWRLHYLLLHTDGPLASSWRHYIAIMAAARHQCSYLVGSHMAEFLQTGGDPEWLLGLH RAPEKLRKLSEINKLLAHRPWLITKEHIQALLKTGEHTWSLAELIQALVLLTHCHSLSSFVFGCGILPEGDADGS PAPQAPTPPSEQSSPPSRDPLNNSGGFESARDVEALMERMQQLQESLLRDEGTSQEEMESRFELEKSESLLVTPS ADILEPSPHPDMLCFVEDPTFGYEDFTRRGAQAPPTFRAQDYTWEDHGYSLIQRLYPEGGQLLDEKFQAAYSLTY NTIAMHSGVDTSVLRRAIWNYIHCVFGIRYDDYDYGEVNQLLERNLKVYIKTVACYPEKTTRRMYNLFWRHFRHS EKVHVNLLLLEARMQAALLYALRAITRYMT

FIGURE 133

GAGACGTCGGCTTCCGACCGGAAGTGAGAAGAGGAGGAGGTTGGCTGGTTGCACCGATCTGGGGGCTTCCCGGGC TCGGGTAACCGGAGTGCTGGTATCTAATCGTCGCTCAAAAGCTCCTAGGTATATCCCGTGCCTTACCTGACTGGG GGCTCTGAGTCCAGTTGTGTTGTCTTCAACTTAGACACCATGGAGGCACCTCCAGTCACCATGATGCCTGTCACT GGGGGCACCATTAACATGATGGAGTACCTGTTGCAGGGAAGTGTTTTAGATCACAGTTTGGAAAGCCTCATCCAC CGCCTTCGTGGTTTGTGACAACATGGAACCTGAGACTTTCCTTGACCATGAGATGGTATTCCTCCTTAAGGGC CAGCAAGCCAGCCCATTTGTTCTCAGGGCCCGACGCTCTATGGACAGGGCAGGGCACCCTGGCATCTGCGCTAC CTGGGACAGCCAGAAATGGGAGACAAGAACCGCCATGCCCTGGTGCGAAACTGCGTGGACATTGCCACATCTGAG AACCTCACCGACTTCTTGATGGAAATGGGCTTCCGCATGGACCATGAGTTTGTTGCTAAGGGACATTTGTTCCGT TTGTCACTCTCCTATCTCGTGGAATTAAGTGTGGTAGCACCCGCTGGGCAGGACATGGTCTCTGATGACATGAAG AACTTCGCAGAACAGCTAAAACCTCTGGTTCACCTAGAGAAAATAGACCCCAAGAGGCTCATGTGACTAAGAGGA $\tt TTTTTGAGACAGAGTCTCGCTTTGTTTCCCAGGCTGGAGTGCAGTGGCACGATCTCGGCTCACTGCAACCTCTGC$ CTCCTGGGTTCAAGCAATTCTCCCACCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACATGCCACCATGCTCAG CTAATTTTTGTATTTTAGTAGAAATGGGGATTCACCATGTTGGTCAGGCTATTCTCGAACTCCTGACCTCGTGA TCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCCTGGCCAAAAAAATATGTTTT GCACTGTTCTCCTCATGTGGCGATTTCACTTTCATGACAGCCTTTCTATATTAAAGGCTCAGGATGTCACGGAGA ATCTATCTAATCCCACTGTATTAAGAGGGGAAACCGGGCCAAGCGCAGTGGCTCACACCTCTAATCCCAGCACTT TGGGAGGCTGAGGTAGGTGGATCACCCAAGGTCAGGAGTTTGAGACCAGCCTGGCCAAATGGTGAAACCCCATCT CTACGAAAAATACAAAATTTAGCCGGGCATGGTAGCAGGCGCTTGTAATCCCAGCTACTTGGGAGGCTGAGGCTG GAGAATCGCTTGAACCCAGGAGGTGAAGGTTGCAGTGACCAGAGATGACGCCATTGCACTCCAGCCTGGGTGAGA AGAGCGAAACTCCGTCTCAAAAAAAAATAAAAATGAAGAGGGGAAACCAGAATAAATTATCTTTTGGAAAGGACA ATTTCTTGTTTGGCCATTTGTGTATAAGGTTGGTAACATTAGAGGCTGTGAGCTTGTGTTACATGGTAATAAAGC CAATGAAGAG

AGCATAGAGACGGGCATTGAGCTCTTGGGCTAGAGCGTCGCCGAGTCGGAGCCGGAGCCTGAGCCGCGCGCTGTG TCTCCGCTGCGTCCGCCGAGGCCCCCGAGTGTCAGGGACAAAAGCCTCCGCCTGCTCCCGCAGACGGGGCTCATC TGCCGCCGCCGCCGCGCTGAGGAGAGTTCGCCGCCGTCGCCGCCGTGAGGATCTGAGAGCCATGTCGGCCAGCA ACGATGATGATTTTGAACCTTACTTGAGTCCACAGGCAAGGCCCAATAATGCATATACTGCCATGTCAGATTCCT ACTTACCCAGTTACTACAGTCCCTCCATTGGCTTCTCCTATTCTTTGGGTGAAGCTGCTTGGTCTACGGGGGGTG ACACAGCCATGCCCTACTTAACTTCTTATGGACAGCTGAGCAACGGAGAGCCCCACTTCCTACCAGATGCAATGT ACTTCTCAGCATGGGGAAATAACAGTTCTCAGGGACAGTCTACTCAGAGCTCTGGATATAGTAGCAATTATGCTT ATGCACCTAGCTCCTTAGGTGGAGCCATGATTGATGGACAGTCAGCTTTTGCCAATGAGACCCTCAATAAGGCTC AAGTTGTAGGTTCTGCTGTTGGTAGCGGGTCCATTACTAGTAACATCGTGGCTTCCAATAGTTTGCCTCCAGCCA CCATTGCTCCTCCAAAACCAGCATCTTGGGCTGATATTGCTAGCAAGCCTGCAAAACAGCAACCTAAACTGAAGA CCAAGAATGGCATTGCAGGGTCAAGTCTTCCGCCACCCCGATAAAGCATAACATGGATATTGGAACTTGGGATA ACAAGGGTCCCGTTGCAAAAGCCCCCTCACAGGCTTTGGTTCAGAATATAGGTCAGCCAACCCAGGGGTCTCCTC AGCCTGTAGGTCAGCAGGCTAACAATAGCCCACCAGTGGCTCAGGCATCAGTAGGGCAACAGACACAGCCATTGC CTCCACCTCCACCACAGCCTGCCCAGCTTTCAGTCCAGCAACAGGCAGCTCAGCCAACCCGCTGGGTAGCACCTC GGAACCGTGGCAGTGGGTCGGTCATAATGGGGTGGATGGTAATGGAGTAGGACAGTCTCAGGCTGGTTCTGGAT CTACTCCTTCAGAACCCCACCCAGTGTTGGAGAAGCTTCGGTCCATTAATAACTATAACCCCAAAGATTTTGACT GGAATCTGAAACATGGCCGGGTTTTCATCATTAAGAGCTACTCTGAGGACGATATTCACCGTTCCATTAAGTATA ATATTTGGTGCAGCACAGAGCATGGTAACAAGAGACTGGATGCTGCTTATCGTTCCATGAACGGGAAAGGCCCCG TTTACTTACTTTCAGTGTCAACGGCAGTGGACACTTCTGTGGCGTGGCAGAAATGAAATCTGCTGTGGACTACA ACACATGTGCAGGTGTGTGGTCCCAGGACAAATGGAAGGGTCGTTTTGATGTCAGGTGGATTTTTGTGAAGGACG TTCCCAATAGCCAACTGCGACACATTCGCCTAGAGAACAACGAGAATAAACCAGTGACCAACTCTAGGGACACTC AGGAAGTGCCTCTGGAAAAGGCTAAGCAGGTGTTGAAAATTATAGCCAGCTACAAGCACACCACTTCCATTTTTG ATGACTTCTCACACTATGAGAAACGCCAAGAGGAAGAAGAAGTGTTAAAAAGGAACGTCAAGGTCGTGGGAAAT AAAAGGCAGTTCTACACAGACTGCAGCAACGGTTGCATCTGCATATCCTAAGAGGAAAAAATGACCTTCAAGAGA ATTAGGACTTTTTTCTTAATTTCACTGACTTCAGAGACGATTGCAGACTTGCAGTTTAAGTATTGGAATTTCACA TTTAGGTGAAAAATGTCCCTTTTATTTTGGCTTTGGTTGTGATTTCAGAGCATAATGCTATGTTTTTTTGTCTTT TTACTATGTTTTTCGGATTTTTAAGTCCGTAAGTGCATACAGTTTTCTCTAATTTTTAAACCCTTTCCTCCTCCC ATTTTGACATTTGCACTTGGAGAACACTTGAGTTGTGAAGGTTTTGGGCATCCACCCCAGAAAGTGGGAATTTGA TTTTATCCTTCCGAACTGGAAGAACATTTTTATGAAGAATTTTTGTCTAGGAGAATATAACAGTGTTACCCAAGG TTGTGTCTTTAAGGGTGGTTCATTTTCTCTGACCTTTTGTTACTCAAAGTAAAGTACTAGGAGTCCTAAGAAATG TTCTGTTCTTGTACATTATACTGATTAAGTCAGGATTAATTTGATTTCAAAGCTGAGAACAGTGGTAAAAACTCG TTTACAGAAATGCATTTTGGAAGAGAAAAATACTGTAAAACGTGTCGTGAATGTTTCTTCAGTTTCTTCAGC CAATGAGGAAAGGGCATTGCCTTTCTTTTTACCATTAATCACTTCTCAATAAACGTGAGATCCTGTTGAGCATC

TACATCGGCCGCCTGAGCTACCAGGCCCGGGAGCGCGATGTGGAGCGCTTCTTTAAGGGCTACGGGAAGATCCTG GAGGTGGATCTGAAGAACGGATATGGTTTTGTGGAGTTTGATGATCTGCGTGATGCAGATGATGCTGTTTATGAA CTGAATGGCAAAGACCTTTGTGGTGAGCGAGTAATTGTTGAGCATGCCCGCGGCCCACGGCGAGATGGCAGTTAC GGTTCTGGACGCAGTGGATATGGTTATAGAAGAAGTGGCCGAGATAAATATGGCCCTCCTACTCGCACAGAGTAC GTGACTTATGCAGATGCTCACAAGGGACGCAAAAATGAAGGGGTGATTGAATTTGTATCTTATTCTGATATGAAA AGAGCTTTGGAAAAGTTGGATGGAACTGAAGTCAATGGGAGAAAAATCAGATTAGTTGAAGACAAGCCAGGTTCC AGACGACGCCGGTCCTACTCCAGAAGCCGGAGTCATTCAAGGTCTCGCTCTCGAAGCAGACATTCCCGTAAGAGC AGAAGCCGAAGTGGCAGCAAAAGCAGTCATTCTAAGAGTAGATCTCGGTCCAGGTCGGGCTCCCGCTCCCGG AGCCGCAGCCGCAGCCATAGCGCTGGCAAGAGCCGCAGCAAGAGCAAAGACCAAGCTGAAGAAGATCCAAAAC AATGACAATGTCGGGAAACCCAAGAGCCGGAGTCCTAGCAGGCATAAAAGTAAGAGCAAAAGTCGGAGCAGGAGT AGTCGGAGCCGGAGCAGGAGCAAAGGGGGCAGCAGGAGCCGGAGCAGGAGCCAGCAAGAGCAAGAGCAAGAGGACAAGAGGA AAGGGCAGGAAGAGAGAGAGAGAGAGCCGCAGTCGCAGCCGCAGCAAGAGTGAGAGGAGCAGAAAG GAGAGTGAGAATGCTGGCACCAATCAGGAGACCCGGTCCAGGTCGAGATCCAATTCCAAATCGAAACCAAACCTT CCATCAGAATCACGCTCCAGATCAAAGTCAGCTTCAAAAACCCGATCTCGGTCCAAGTCTAGATCCAGGTCTGCT TCCAGATCGCCCTCCCGATCTAGATCTAGGTCCCACTCAAGGTCCTAACTGGCTATGGCCACAGCTGGAACTACC CGAGAAGTCTTTTGTACATGTTTGGTAGCCGTAGCACAAGTGATTGGAGTAGAACATGTCACTGCTGTACATTTT TAACTCCCCTAATGGTGTGTCTATAATTGTTAAATCTAAGTGCTTCCTCTCAGTAAAGCCTCCTGGCACCAGGCC TTCCTGCTCGACTGAAAAAATTTTCTCTTTGAAAATCCCCTTTTACTCATGGCCCACAGTAGAATATCCAAAAC GCCTTGGCTTTCAGGCCTGGCCTTTCCTACAGGGAGCTCAGTAACCTGGACGGCTCTAAGGCTGGAATGACCACA TAGGTAGGTATGGTGAGTTCAACCATTTTTGCTCTTGAATTGATGCCCTTCGATGTATGCCATTTAGTGAAAGTG CTAAGTCTTAAGTTTCCTACCACTTTGGTTTCATATTTTTGGACTTAACAAAGTTGTGAATAGCACAGTCGAGGA AAATTGATACCTGCAGTAACCCATAGGAAATAAACTGTAGAGTTCCATATTCTGGTATTGTGATTATATTGTTTT ATATT

AGGGTTCTCTCCCCTTGCCACCATGAGCGAGTCATTTGACTGTGCAAAATGCAACGAGTCCCTGTATGGACGCAA GTACATCCAGACAGACAGCGGCCCCTACTGTGTGCCCTGCTATGACAATACCTTTGCCAACACCTGTGCTGAGTG CCAGCAGCTTATCGGGCATGACTCGAGGGAGCTGTTCTATGAAGACCGCCATTTCCACGAGGGCTGCTTCCGCTG CTGCCGCTGCCAGCGCTCACTAGCCGATGAACCCTTCACCTGCCAGGACAGTGAGCTGCTCTGCAATGACTGCTA CTGCAGTGCGTTTTCCTCGCAGTGCTCCGCTTGTGGGGAGACTGTCATGCCTGGGTCCCGGAAGCTGGAATATGG AGGCCAGACATGGCATGAGCACTGCTTCCTGTGCAGTGGCTGTGAACAGCCACTGGGCTCCCGTTCTTTTGTGCC CGACAAGGGTGCTCACTACTGCGTGCCCTGCTATGAGAACAAGTTTGCTCCTCGCTGCGCCCGCTGCAGCAAGAC GCTGACACAGGGTGGAGTGACATACCGTGATCAGCCGTGGCATCGAGAATGTCTGGTCTGTACCGGATGCCAGAC GCCCCTGGCAGGGCAGCAGTTCACCTCCCGGGATGAAGATCCCTACTGTGTGGCCTGTTTTGGAGAACTCTTTGC ACCTAAGTGCAGCAGCTGCAAGCGCCCCATCGTAGGACTCGGTGGAGGCAAGTATGTGTCCTTTGAAGACCGACA CTGGCACCACACTGCTTCTCCTGCGCCCGCTGCTCTACCTCCCTGGTGGGCCAGGGCTTCGTACCGGATGGAGA CCAAGTGCTCTGCCAGGGCTGTAGCCAGGCCAGGGCCCTAAGCCAGGGCTCCTGGACCCAGGCTTTCCCATACCAC TCTGGGCTCCAGGATTGTCTCCCCACTCCAGCATCCCCAAACTGGTACTCCCTGACCCAGGGCCCCAAACCTGGG CTCTTACAGAGCCTCCATGAGTCAAGCCCCCTCCCCACACCTGGACTCCAGAATTCACCCTCTCCCCTGCAGTCT GGGTTCCCAGACTGAGTCCTCTCCCCAAATCAGGGCTCTAGACCCGAGCCCTCCAAACCTGGACTCTGGGACTTA GGCCCCTTAAATCTAGACTTCTCTTTATAGGTTTCAGGTCTCCTATGGGTGCCTGGGAAGTCCTTGAAAGTGGA CTGTTCTCAGGCTTGACCTGCCCCACCCCATCCCCGCGGTTGAGGCTGTGGGGGCAGCAGATCAGGAGCCCACTG ATAAGGGGCCCTAGGGTACAGGGTGCCCCAGCAGGTCGCCACCGAGTGTCTTCTCATTTTATTTCAGCTCCAT TTTGCCCATAGATGGGCAGAGGGGTGAGATTGGCTCATCCCCCTTCCAGATTCTGCAATAAAGCGGTGTGAGG

145/6881 FIGURE 137

CTACAGATACTGCCGTGTGAGAGTACCTGAGGGGCTCCTGAAAGACCTACTGCCAGGACCAGTGACCCTGGTGATGAC GGAACGCTCGGAGGAGCTCAACAAGGACCTAAACCCTTTTACGCCTCTTGTAGGCATTCGGATTCCTGATCATGC TTTTATGCAAGACTTGGCTCAGATGTTTGAGGGTCCGCTTGCTCTCACTAGTGCCAACCTCAGCTCCCAGGCCAG TTCTCTGAATGTCGAGGAGTTCCAGGATCTCTGGCCTCAGTTGTCCTTGGTTATTGATGGGGGACAAATTGGGGA TGGCCAGAGCCCCGAGTGTCGCCTTGGCTCAACTGTGGTTGATTTGTCTGTGCCCGGAAAGTTTGGCATCATTCG TCCAGGCTGTGCCCTGGAAAGTACTACAGCCATCCTCCAACAGAAGTACGGACTGCTCCCTCACATGCGTCCTA AAGGCCTCATTTGCAGAGGCCACCGGAGCTAGGGCACTAGCCTGACTTTTAAGGCAGTGTGTCTTTCTGAGCACT TCAGCCAAAAGCTGAATGGAAAAGTTAAGAACATTCCTAGGTGGCCTTATTCTAATAAGTTTCTTGTCTGTTTT TTTAAGGTTCAAACCAGCCAGAAGTGCTGGTGCTGTTTAAAAAGTCTCAGGTGGCTGCGTGTGGGCTCATGCC TGTAATCCCAACATTCTGGGAGGCCCAGGCGGGAGAACTGCTTGAGCCCAGGAGTTCAGAATCAGCCTGGGCAAC ATAGCAATACTCCGTCTCATAAAAATTAATAAATAAAAAAGTCTCAGGTGACCAAAGGCTCCTGAAGCTAGAACCA GGTTTGGATAAAGATTGAAGAGCCACAGGCCACTCTTCCCTCTGAGCCATTGGGCCTAGTGGTGTCATGTATTGT AATTGCTCGCAGGGAGAGCAGTCTTTTTGGTGTAATAGTGGGATGTCTGCTTAGTTGGCAGGGGTTCAGTCCAAA ATTATAGTTAATTATACCCATAACACCTTTATTTAAATCCAGTGTTCTCCGCAGCCTTTTGTCTATTTATATGTG TACCAAGTGTTAAACATAATTATTATTGGGCATTTGAACTTTGTTTTTCTTTAAAGAAATGCTGCTATTAAACAT

146/6881 FIGURE 138

 ${\tt MERSEELNKDLNPFTPLVGIRIPDHAFMQDLAQMFEGPLALTSANLSSQASSLNVEEFQDLWPQLSLVIDGGQIGDGQSPECRLGSTVVDLSVPGKFGIIRPGCALESTTAILQQKYGLLPSHASYL}$

FIGURE 139A

AGGCCCAGCGCTGGCGCAGTGAGAACTTCGAGAGACCCGTGGACCTGGAGGGCTCTGGGGATGATGACTCCTTTC TTCACTGCCTGGGTCAGGCAAGTTCTTCTTGCTCTGGATCCCCAGAACAAGAAGGGCAGAACATCCTTCTGGGGA TAGAACAAGACCTGGGAGGACCTCAGGGCCCAGAATGTCCAGGTCTCCAGGGTCCCACGTCTGCATCTTTGTGTG TGCTATGTGGCTTTCTCTGCAGACCTTGCTTGGTTCCGGTGGTCCCGTCAGGTGCAATAAGCTGTGGCCAATGGT GGGGTTAGGGCAGTGATGACACAGGGCAGGTGCTTCAAGTGGTGCCTGGGATGGCCCCGCCCTGGGGAAGGGGAG CCAGGTCAGCTGGGTCTAGCAGAATCTCGGGAGAGAGGGCACCGCGAACCCCACTCTGCCATGTAGCAACTGTG TGCCCCTCGGTGCTCCCCCTCCCTGAATCCCTGTATTTTCACCTGTGGATGGTGAGAAATACGACTTCTTCTCAG TGCCTCTAGGAGGGTTTGGGATAGGAAGCTGGGGTCTGGCACAGAGGAGGAGCTCTCAAAATGGTAGCAAAAAGA AGGCAGCTGAGACTGGGCCCAGTGAGGGCACGGGCTGGCATCTGAGGAGATGGTACGGGGTCTGCACGCCACAGA GCTGGCTCCCCACAGCCCTCGGCTCTCGCTCTCCTTAGCCAAGTCCTTTGAGCCTCTTTCAAATTAATCTT TGTCCCGGCTTTGCGTCAGCCAGATTGCTCAAGCAGTTCCCCTGCCTCAAGGGCTTCTTTTCCCTTTTACCCTCC GCCTCTGCCTCTGGGGGAAGCCCTTAGTGTACCACCCCTGCCTTGAGCTTGTGGTAGGGGTGCCTTTGGGGTCTG ACTCTTCCCAGAATGCCACTCCTGTGTTCCCCTGCAAGCCCCAGCAAGTTTTGCAGCCAGTAGCGCCTCAGTTGC GCGGCCCCAGAATTTTTGACTTGGCAGAGAAGTTGGGGAACATCAGCAACTGACCACCTTTAGCTGGGCTGT GCCTTCCTCCTTTCTCATCTTTTCTGGGAAAATTGGGTAAAGAGAGGGGGTTGGGAGACCTAATCTTGATGGC CATTGCTTACCTGGGATCCTCATGCCCCTCACAACCACCCAGCTCCCTAGCTCTCTCCCCTCTCCCCCACCCCCTC AGACTTCGAGCAGGAGTCGGGCATTGAGACAGCCATGCGCTTCAGCCCAGATGTAGCCCTGGCGGTGTCCACCAC ACCTGCGGTGCTGCCCACCACGAACATCCAGCCTGTGGGCACACCATTTGAAGAGCTCCCCTCTGAGCGCCCCAC CGCCACCCCAGCACCCCTGCAGCACCCCCTTTTACGGCCACCACTGCTGTTATAAGGACCACTGGCGTACGGAG GCTTCTGCCTCTCCCACTGACCACAGTGGCTACGGCACGGGCCACTACCCCCGAGGCGCCCTCCCCGCCCACCAC GGCGGCTGTCTTGGACACCGAGGCCCCAACACCCAGGCTGGTCAGCACAGCTACCTCCCGGCCAAGAGCCCTTCC CACAGAGGTGGCTCAGACCCCAACTCCAGAGACCTTCCTGACCACAATCCGGGATGAGCCAGAGGTTCCGGTGAG TGGGGGGCCCAGTGGAGACTTCGAGCTGCCAGAAGAAGAAGACCACACCAGACACACCAGCCAATGAGGTGGTAGC TGTGGGAGGGGCTGCGCCAAGGCATCATCTCCACCTGGGACACTGCCCAAGGGTGCCCGGCCCGGGCCCTGGCCT CCTGGACAATGCCATCGACTCGGGCAGCTCAGCTGCTCAGCTGCCTCAGAAGAGTATCCTGGAGCGGAAGGAGGT TATGAAGAAAAAGGATGAGGGCAGCTACACGCTGGAGGAACCCAAGCAGGCGGCGACGTCACATACCAGAAGCCTGA CAAGCAGGAGGAGTTCTATGCCTAGTGGAGCCACAGTGCCTCCCTGCAGCCTCAACACCCCTGCTGCTGCCAGTC CCCAGCCTGGCCCCACCAGCCCAAGCCTGGGACTGGGCCTGGAACCTGGCCCCAGTTCTTCTCTGCCCTCTCTCC CAAGGTCTGCCCAGGCTGCCAGCCTCACACAGATCTTCCCCGAGGAAGAGGGGGCTGCTGCCATCTGCCCCAGACT GTGCCCTTACGAGCTCATCTCTTGTTCCCCTCATCCCTGCCACCAGTCTGGGGCCTTCAGGACCTCATGTCAGATG GATGGGAGGAAGAAGCTCCTGATTGGCTGGTGGTAGAAAGGGTGGGGCTTGAGATGAGCCTGAGCCCTGAC TTGGCACCCACAGTGCTCACTGAGATCTCCTTTTTGGGGCAGAGAGGCACTCAGGCTGGTTTCCAGGACAAACAT GTGAGAGGGTGTCCCTTGTCACCAGCCTGTTTTGTCCTGGTCTCTCTGGGGTTGTTGAATCTCTCCTCTTGCCTG CCAAGTACACATGTACCCAGACTTCATTTCTTTCTGCATCTTCCCCCAAGAAACAGCTTCCTGAGGGTGCTGGGG CAGCCACTGGTGAGGAGGGGCTGCTCTGATGTCCCTCCTATGAGGGGACTCTGCACAGACACCATTGCCCACACT ATCACCATATTTTCACTCAGTCACACACACACAAGACAAAAGCATGCAATGACAAAACCATACGCAATCCTGACCGCCC CAGACACGTACTGCAATGCAAGTCACTAGTCATGGTCACATGACAGTGACAGTGTGGCCTCCTCCTACCCCAAAT

FIGURE 139B

ACACCCACACTCTGGCACCACACACTTGTCTCCAGCTTTCAGGCTTACTGGGGAGGGTGGAATCGAGCCAGAAC CAGCCGCCAACCCCAGCCAGTGTCAGACACAATCCCATGTGGATGCACAGTCTCACTCCACATGACCTGCTCTCA TGCAGGTGGGCCTGGCTTCACCCCTACCTGCTTCCTCCCCACCGCAGCTGGCAGAGGGGGGGAGGTTTGGGGCCAGA $\tt TGGGTCTCCCAGGACGGAAGGCCCAGGGCAGGGAGGGGGGCATGTGGTTGGGCTCCTTTATCTCCCTGTGTCCCCT$ ACCTATTTGGCCAAACATTCTGGCTGCAGCTTCAGGGGCCATGGCTGGAAGCAGCCCCTGCAGATCCCTCAGGC GGGCTATTTCCATCGGTATTTTAAATGTGGGGTCACAGATCTTTTGGGGAGGGTGTGCTTGGCAGGGGGCCTCTT GGAGCCAAAGGGATGTGGTGTGAGTTGCGATTGGCTGGCACTCACACCCCCACCCCTCACCCACATCCCAGATTC **AAGTCAGGAAGGCAGGTTTTATTTCAGGGCCCTTTTCAAGATGCCCTGGCAGCAGATTTCTGCAGGATGAGGGGT** ${\tt AGCGGTGTGAGGCAGTGAGGGGGGGGTTCCAGGGGTTCCCACAGCCTGTCTTTTCCAGGCTGGGCTCCATCT}$ TCCAGTCCCAAAACCCTCCTTCACAGGGCCCAGAGGCTTGTGAGGAAGCCAGGTGGACCCAGCCTTAGAAGAGTG GGCATGGGGGGCCCCTGATATCTGGAGGGGGGGGGTTGGCCTCAGTCATCTTTGGAGCAGAAGGGCTGGGTCCTG GGGCCACAGACCACAAGGCTCAGCCTCCCTACCCTGCTCCCTGGGGTGCTGCTGTCTTGGAGAGCACAGCTCTGG TGAGACGGCCTGGGCAGGCCGAGGCTGAGAAACCAGGGAGGATAGAGGAGAAAAGGGCTTGGGCCCCCAGCCCCA GAAGATGCTGGACCCCAGGTGGGAGACCCAACAGTGGGTGCAGTTTCTCAGTAGGGCTGGAGCCAATGGTGGGGG TGGCCCCGGCAGGCCTGGCTCCTCACATCCCAGGGGTTGGCTTCTGATTTGGGGCTTCGGCTCCAGGCACTGGCT TCTCTTCTCTGTGTCCTTAGCATTTGAGAGAAGAGGCCAGGGGCCTTGTTCATGGATCCCTGGACCCAAGGCAGA GGCAGTCCAAGAGAGTTCAGTGAGGACCAGCTAGGCTCTCCCAGGTGCAATGTGGGTGCAGGGCCCTCATGTCCC CCTACCCCTGCCTGTGATGGAGTGTTCTGAGGGGCTTTGGCATTTGCTGGAAGCACAGGGAGTTCCAAATGAGAG GGAGCTTCTGTGGCTTGAGAGCCTCTGGGGCCTTGGCTGCCAGAGCACGAGCCAGGCCAGGACCTGGAGAGCCCA GACCCTGTCTCCAGGAGGCCAGGAGGCCAGATGGGGGCCTTGCCTGAAAGACTGGTCCCCTTGATCGCTGGAGGC ATGTGGGTGGCAACCAGGGCTGGGCAGGGCTTAGGGTGTGTGGGCCAAACCCCCCTGGGGTTGGCAAAGCCGCCT TGTGTTCTCTGGATTTCTCCCCAACAACTACAACCTGGACTTGCCTCCCCAGGCCTCTTGCCTGTAAATAGA AGCCCGCAAACTGTACAGATTTACAGAGGCATCGAGACTGGGCCCTGGGAGTTGCCATCTGAGAGCCGATGGCCC CAGCATCCCCCAGGTGCCTGCCTGGCACCACAGTGACCCTGGCCTCAGCGTGGCAAATGCATGTAAATATTTTTC GTAGGCAGCGTGGCTCCAGAGAGCCCCCTGAAGACAGTGTCCCTCCTCTGTGAGTCCTTTCTCTGTACAGAA CCTGCCTGGGGTGGGGGGTCTGCCATTCCCTCCCCAGGCCTTCCCTGCCCCTTCTCTCCCCTGTAACCTGT TTATTAACCATACCTGTCCTGAGTTCATGGCCAAAACCTTAAATAAGAAAAACAAAAGAAAAAGACAGTGGAAAA AAGAGACCAAGGCGCCTGCCCCACTGCGGGTACTCTCCTGTTCCAGCCTTGTGAAGGAACTGGTTTTGTTTTTGT ATAAAATTAAGCTGAAATG

GCTGAGCGGCTTTGGACACCATGAACTTTGATGTGATTAAGGGAAAGCCAATCCGCATCATGTGGTCTCAGAGG GATCCCTCTTTGAGAAAATCTGGTGTGGGAAACGTCTTCATCAAGAACCTGGACAAATCTATAGATAACAAGGCA GACCGCAAAGTATTTGTGGGCAGATTCAAGTCTCGCAAAGAGCGGGAAGCTGAGCTTGGAGCCAAAGCCAAGGAA GGTAAGACCCTAAGTGTCAAGGTGATGAGAGATCCCAATGGGAAATCCAAAGGCTTTGGGCTTTGTGAGTTACGAA AAACACGAGGATGCCAATAAGGCTGTGGAAGAGGATGAATGGAAAAGAAATAAGTGGTAAAATCATATTTGTAGGC CGTGCACAAAAGAAAGTAGAACGGCAGGCAGAGTTAAAACGGAAATTTGAACAGTTGAAACAGGAGAGAATTAGT CGATATCAGGGGGTGAATCTCTACATTAAGAACTTGGATGACACTATTGATGATGAGAAATTAAGGAAAGAATTT ${\tt TCTCCTTTTGGATCAATTACCAGTGCTAAGGTAATGCTGGAGGATGGAAGAAGCAAAGGGTTTGGCTTCGTCTGC}$ TTCTCATCTCCTGAAGAAGCAACCAAAGCAGTCACTGAGATGAATGGACGCATTGTGGGCTCCAAGCCACTATAT AGAGCACTICCTGCCAATGCCATCTTAAATCAGTTCCAGCCTGCAGCGGGTGGCTACTTTGTGCCAGCAGTCCCA CAGGCTCAGGGAAGGCCTCCATATTATACACCTAACCAGTTAGCACAGATGAGGCCTAATCCACGCTGGCAGCAA GGTGGGAGACCTCAAGGCTTCCAAGGAATGCCAAGTGCTATACGCCAGTCTGGGCCTCGTCCAACTCTTCGCCAT $\tt CTGGCTCCAACTGGTAATGCTCCGGCCTCTCGTGGCCTCCCTACTACCACTCAGAGAGTCGGGTCTGAGTGCCCG$ GTTCCCACAGCTGTGCAGAACTTAGCGCCACGCGCTGCTGTTGCTGCTGCTGCTCCCCGGGCTGTTGCCCCCTAC AAATACGCCTCCAGTGTCCGCAGCCCTCATCCTGCCATACAGCCTCTGCAGGCACCCCAGCCTGCGGTCCATGTG CAGGGGCAGGAGCCACTGACTGCCTCCATGCTGGCAGCACCCCCCCAGGAACAGAAGCAGATGCTGGGAGAA AACTCTGAGCTGCACATGTTAGAGTCCCCCGAGTCTCTCCGCTCCAAGGTGGATGAAGCTGTAGCAGTTCTA CAGGCTCATCATGCCAAGAAAGAAGCTGCCCAGAAGGATTCAAAAGCCAAATAACCCCTTATGGAATTCAACTCA AGGTTTGAAGACTTCCTAGCTTGTCCTATGGACCTCAACACCAAGGATTACAAATTGCAAATTTAATAGGTCATT TTGTATCAAAAGGTCAATTATGAAGCACCTAGAATTTTTCAATTATACGAATATGTTCTTTGGGTTCTGCTGTGG ${\tt CCCAGACAGTGTTAACTTTTTTTTTTTTTTTTGTGGGTTTTGATTTTTTCCCCCAGAAATTGGTTTTATTTGATGTACC}$ CAAGTCTTACGTTTCCCAATAAAGAAAAAAAATCTCCAT

 ${\tt ACCAGGCAGCCTGCGTTCGCC} {\tt ATG} {\tt AGCGACCCAAGGAGCCGAGCGGCTCCGACGGGGAGTCCGACGGACCCATC}$ GACGTGGGCCAAGAGGGCCAGCTGAGCCAGATGGCCAGGCCGCTGTCCACCCCCAGCTCTTCGCAGATGCAAGCC AGGAAGAACGCAGAGGGATCATAGAGAAACGGCGTCGAGACCGCATCAACAGTAGCCTTTCTGAATTGCGACGC TTGGTCCCCACTGCCTTTGAGAAACAGGGCTCTTCCAAGCTGGAGAAAGCCGAGGTCTTGCAGATGACGGTGGAT CACTTGAAAATGCTCCATGCCACTGGTGGGACAGGATTCTTTGATGCCCGAGCCCTGGCAGTTGACTTCCGGAGC ATTGGTTTTCGGGAGTGCCTCACTGAGGTCATCAGGTACCTGGGGGTCCTTGAAGGGCCCAGCAGCCGTGCAGAC CCCGTCCGGATTCGCCTTCTCTCCCACCTCAACAGCTACGCAGCCGAGATGGAGCCTTCGCCCACGCCCACTGGC CCTTTGGCCTTCCCTGCCTGGCCCTGGTCTTTCTTCCATAGCTGTCCAGGGCTGCCAGCCCTGAGCAACCAGCTC GCCATCCTGGGAAGAGTGCCCAGCCCTGTCCTCCCGGTGTCTCCTCCTGCTTACCCCATCCCAGCCCTCCGA ACCGCTCCCCTTCGCAGAGCCACAGGCATCATCCTGCCAGCCCGGAGGAATGTGCTGCCCAGTCGAGGGGCATCT TCCACCCGGAGGGCCCCCCTAGAGAGGCCAGCGACCCCTGTGCCTGTCGCCCCAGCAGCAGCAGGGCTGCCAGG AGCAGCCACATCGCTCCCTCCTGCAGTCTTCCTCCCCAACACCCCCTGGTCCTACAGGGTCGGCTGCTTACGTG GCTGTTCCCACCCCAACTCATCCTCCCCAGGGCCAGCTGGGAGGCCAGCGGGAGCCATGCTCTACCACTCCTGG GTCTCTGAAATCACTGAAATCGGGGCTTTC<u>TGA</u>GCTGCCCCTTCACCACCCCGCCCCAAGGAATAAGGAAGGTTC TTTTACCAGGAGCCCAAAAAAGGGCACTGCCTTTTCTGCTTTGCTTCGTGGACTGGCTCATATGTGAAGGCACGT TCTCCAGCCATCAGAGGCCCCCTCCTCCAACCCATCTCTCCTCTCACTGTTATCCCAGCTTATCCACCCAG CTCTCCTGGAGCTGTTCTGGTCTCAGAGGCTTGGTTCCATTTCTCACCTGAACAGATGAGTCCTGGGAGAGACCC TCAGAGATCCGCCCAGACCCCTCTCCTGCCCTCTGCACACCAGCAGCAGGCATGAACCTTGGGTCTGGGAAAAAG CTTTAACCTGCAGGGCACCAGGACCCAAGGCAGGCTGTTCCTTGGGGCGGTCAGACCCCAGTCAGGAGCAATGAC TGACTGGCTGCAGCCTTCCCACGCCAAGAGGCTGGAACATAGTGTCTGCCTCGCTTCCTGGAGATAGTAACTGAG CAGGGGCTACAAAGAGGTCTCCTGGGAACCCTGTCTGCCCCTTCCCACCTGTCCTTGGGCCACACCATCACACTG AACCACAGGACAGACCCTTTCTCCACCACAGCCAAGGCCTGGAGACTGGGGGCCCAGCAGAGCCTGCTCCCACCC TCCTCCCAGCAGCAGCACCCCACCCTCTCACTGACTAACAGGTCCCTGCACACAGCTGGCCTGGTAAACCCAGCT GGGAGGTTTCTAGGCAGCAGCAAAACTCTGTGACAGGGTGTCCTCACACCAGGCCTTGGACAGCTCTCCCAGACA GGAGCCAGGGTTGAGCAATGGAGAGCCCAGCCCCACGTCTTACAGTCGCCATCCTCCAGGCGTGTGGTCCCTCC CCATTGGGTGCACAGTGCAGAGGGGCCGTGGCCCCATGTGATGGTGCGCAGAGAGGAACCTCTTGGGATTCAGCA CCAGACGTCTGTGCTGCCTGGTTTGCATCCGGCTCACAGAGCCCAGACTGCTGGAACAGCCAAGGACTGTCAGGC TGGACAAAATAACTGCAAGGAGGGCAAGAGAAAGGATGATTCGAGGCACCTTGGCCCTTCAAGGTCATGCAGT GGGTCGAGCCCTGAGATCCTGTTCACCAGGACTCCACAGAGCTGGCTCTGCTCAGAAGCCATTTCATTCCCCGG CTCCACCCTAGGCCACTTTTCTAACAGAGGAAACAAATGGTCCAGCAGTCGTTCCCAGCAGAACAGCGGAGCCT GGACTGACACCCAGTGGGACCAGTGTTGCCACACCAGTTGATAAAATGCAGAAACCCTTCTGTACTCGTTGGTAA ATATCTACTCCCCCAAGTGACTCCAGGTGCCCCCCACCGCCTGGCACTTCCCCCAGGACTCCTACGATCTGGTTA TTCAGTTGTCACCCCTGGGAAGATTCTCCCACCTCCTCTCTTTGATGGAACCACCCTCCCCAGAGGCTGCATTGA GGAGACTCCACAGACTGAAAAGTGAGTTTGCAGAAACCTTGGGGAAAAGGGCCCCTTTCAAAGAAGTGGATAAGAG CCTCTTCATTTTTTAGTGTGAGCTAATTCCATCAGACTGCTGTCCTCCTGGACCCATCTGAGATGTGCAGTAGC GGTAGAAGGAAGACACACACACACCCCCAGGATTGGGGACAGGGACAGAGGGAGACAGAAGGCAAAGG CCAGTTTCCCCGTTATCATGAAGGGGCCCACTCAGGACAGGACAAGGACAACTCCTCCTCCTCCTCCTCCTC CTGCTGCTCCTGGGATACCAGGTCAGTGATGTAGTCTTGCAGTTTGGCAACTTCCTAGCCTGAGAATCCCTAGTG GGGCTGTGGGAAACACATTTCCACGTTGCAAGCATGCAACTCCAAAGAATCTGTGATGCCACTGAAATGAGATGG CTGTGTGATCTGATTCTGTGGTCAAGGACTTGCATCTTGTGTTTCTATCCCCAAGCCTTCCTGGTGTCTCCAACT

FIGURE 143

MKRPKEPSGSDGESDGPIDVGQEGQLSQMARPLSTPSSSQMQARKKRRGIIEKRRRDRINSSLSELRRLVPTAFE KQGSSKLEKAEVLQMTVDHLKMLHATGGTGFFDARALAVDFRSIGFRECLTEVIRYLGVLEGPSSRADPVRIRLL SHLNSYAAEMEPSPTPTGPLAFPAWPWSFFHSCPGLPALSNQLAILGRVPSPVLPGVSSPAYPIPALRTAPLRRATGIILPARRNVLPSRGASSTRRARPLERPATPVPVAPSSRAARSSHIAPLLQSSSPTPPGPTGSAAYVAVPTPNS SSPGPAGRPAGAMLYHSWVSEITEIGAF

153/6881 FIGURE 144

GATCCTAAATTGCAGCAAGGCTACAATGCTATGGGATTCTCCCAGGGAGGCCAATTTCTGAGGGCAGTGGCTCAG ${\tt AGATGCCCTTCACCTCCCATGATCAATCTGATCTCGGTTGGGGGACAACATCAAGGTGTTTTTGGACTCCCTCGA}$ TGCCCAGGAGAGAGCTCTCACATCTGTGACTTCATCCGAAAAACACTGAATGCTGGGGGCGTACTCCAAAGTTGTT CAGGAACGCCTCGTGCAAGCCGAATACTGGCATGACCCCATAAAGGAGGATGTGTATCGCAACCACAGCATCTTC TTGGCAGATATAAATCAGGAGCGGGGTATCAATGAGTCCTACAAGAAAAACCTGATGGCCCTGAAGAAGTTTGTG ATGGTGAAATTCCTCAATGATTCCATTGTGGACCCTGTAGATTCGGAGTGGTTTGGATTTTACAGAAGTGGCCAA GCCAAGGAAACCATTCCCTTACAGGAGACCTCCCTGTACACACAGGACCGCCTGGGGCTAAAGGAAATGGACAAT GCAGGACAGCTAGTGTTTCTGGCTACAGAAGGGGACCATCTTCAGTTGTCTGAAGAATGGTTTTATGCCCACATC ATACCATTCCTTGGATGAAACCCGTATAGTTCACAATAGAGCTCAGGGAGCCCCTAACTCTTCCAAACCACATGG GAGACAGTTTCCTTCATGCCCAAGCCTGAGCTCAGATCCAGCTTGCAACTAATCCTTCTATCATCTAACATGCCC TACTTGGAAAGATCTAAGATCTGAATCTTATCCTTTGCCATCTTCTGTTACCATATGGTGTTGAATGCAAGTTTA ATTACCATGGAGATTGTTTTACAAACTTTTGATGTGGTCAAGTTCAGTTTTAGAAAAGGGAGTCTGTTCCAGATC TTCCAAGTCTTGCCATATTTCAAGCAAAGAGGTGCCCAGGCCTGAGGTACTCACATAAATGCTTTGTTTTGCTGG TGATTTAACCAGTGCTTGGAAAAATCTTGCTTGGCTATTTCTGCATCATTTCTTAAGGCTGCCTTCCTCTCAG TACGTTGCCCTCTGTGCTATCATCTTATCATCAATTATTAGACAAATCCCACTGGCCTACAGTCTTGCTTCTGCA GCACCCACTTTGTCTCCTCAGGTAGTGATGAATTAGTTGCTGTCACAAAAGGAGGGAAGTAGCACCCAAATTAAG TTGCTTAAGAGAGGAAATGTACATCTTGTATAACTTAGGGAGCGAAGAAAATGTAGGCGCGAAAGTGAAAAGTGA GGCAGCTAGTTCTTCCTATTCCATTCTCGACCAACCTGCCCTTTCTTAATATGACTAGTGGTCTTGATGCTAGAG TCAACTTACTCTGTTGCTGGCTTTAGCAGAGAATAGGAGGAACCATATGAAAAAGATCAGGCTTTCTGACTTCCA TCCCCAAAACACATTTACCAGCATACTCCAAACTGTTTCTGATGTGTTCCATGAGAAAAGGATTGTTTGCTCAAA AAGCTTGGAAAATACTACACCCCCTTTCTCCTTCTGGAGATCAACCCACATTAGAGTGTCTAAGGACTCCTGA GAATTCCTGTTACAGTAAACAAAACTAACGTAATCTACCATTTCCTACACTATTTGAGCATGGAAATCATAGTCC CCACTCTGTGAAAACTTAACGCTTTTTGGAAGACATTTCTGTAGCATGTCAGTTTGGAGAAATGATGAGCTACGC

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GGGTCGCGGGAGATTGCTGGGCGGTTCTTGCCGGAAGCGGAGGCGGCTGATCGCAGTCCGGAGGTGAGGCGGA ACTCTGAGGCAGATATCCTCCCTTTCCTCCTCGGCTGCTCTTTACTTTGACAAGCCAGGCTAACATTGAAGGT GGTCCATTATGGCTGACATGCAAAATCTGGTAGAAAGATTGGAGAGGGCAGTGGGCCGCCTGGAGGCAGTATCTC ATACCTCTGACATGCACCGTGGGTATGCAGACAGTCCTTCAAAAGCAGGAGCAGCTCCATATGTGCAGGCATTTG ACTCGCTGCTTGCTGGTCCTGTGGCAGAGTACTTGAAGATCAGTAAAGAGATTGGGGGGAGACGTGCAGAAACATG AAAATAAGCTTTCCGATTTGTTGGCACCCATCTCAGAGCAGATCAAAGAAGTGATAACCTTTCGGGAGAAGAACC GAGGCAGCAAGTTGTTTAATCACCTGTCAGCTGTCAGCGAAAGTATCCAGGCCCTGGGCTGGGTGGCTATGGCTC CCAAGCCTGGCCCTTATGTGAAAGAAATGAATGATGCCGCCATGTTTTATACAAACCGAGTCCTCAAAGAGTACA AAGATGTGGATAAGAAGCATGTAGACTGGGTCAAAGCTTATTTAAGTATATGGACAGAGCTGCAGGCTTACATTA AGGAGTTCCATACCACCGGACTGGCCTGGAGCAAAACGGGGCCTGTGGCAAAAGAACTGAGCGGACTGCCATCTG GACCCTCTGCCGGATCAGGTCCTCCTCCCCCTCCACCATGCCCCCCTCCTCCCCCAGTCTCTACCAGTTCATGCT CATATGAGTCTGCTTCCCGCTCAGCACTGTTCGCGCAGATTAATCAGGGGGAGAGCATTACACATGCCCTGAAAC ATGTATCTGATGACATGAAGACTCACAAGAACCCTGCCCTGAAGGCTCAGAGTGGTCCAGTACGCAGTGGCCCCA AACCATTCTCTGCACCTAAACCCCAAACCAGCCCATCCCCCAAACGAGCCACAAAGAAGGAGCCAGCTGTACTTG AACTGGAGGCAAGAAGTGGAGAGTGGAAAATCAGGAAAATGTTTCCAACCTGGTGATTGAGGACACAGAGCTGA AACAGGTGGCTTACATATACAAGTGTGTCAACACGACATTGCAAATCAAGGGCAAAATTAACTCCATTACAĞTAG ATAACTGTAAGAAACTTGGCCTGGTATTCGATGACGTGGTGGGCATTGTGGAGATAATCAACAGTAAGGATGTCA AAGTTCAGGTAATGGGTAAAGTGCCAACCATATCCATCAACAAAACAGATGGCTGCCATGCTTACCTGAGCAAGA ATTCCCTGGATTGTGAAATAGTCAGTGCCAAATCTTCCGAGATGAATGTCCTCATTCCTACAGAAGGCGGTGACT TTAATGAATTCCCAGTTCCTGAGCAGTTCAAGACCCTATGGAACGGGCAGAAGTTGGTCACCACAGTGACAGAAA TCTTTTCTAGATTTCCTCTACCTTTTTGCTCTTAAAACTGCTTCTCTGCTCTGAGAAGCACAGCTACCTGCCTTC ACTGAAATATACCTCAGGCTGAAATTTGGGGTGGGATAGCAGGTCAGTTGATCTTCTGCAGGAAGGTGCAGCTTT TCCATATCAGCTCAACCACGCCGCCAGTCCATTCTTAAGGAACTGCCGACTAGGACTGATGATGCATTTTAGCTT TGTT_CACACTGGTTAATCTTTTTTTAACAATGAGCATGAAGGTAGCAGAAGCTGGTGTTTCCAGATGGTTCTT CTAACCAAACTAATTTTCACTGTTGACAAGCGAGGCAAGGGTTGCACTGGACCAAAGGCTGAGGCTTGGCCATC TAGCATTCCATACAAAATTGTTTCCTATAAGCATTCCTTTTATTCTCTATTCTATCCTGGGTCTGCCTCAACCGT GAGATAGGAGAGTCTCTGGTACTAGCTGCTGTAGCAGTGCCCTTCATCCAGGGCAGTTAATGGAGTCTTGGACCC CCACATGATTTCAAGGAGTCTGGCATTCCTGAATCCTTCTTCCCTGCCAGGTGCCTGTCACCTGTCTTCACTGCC TCCTTTTCCCTGTCATGCTCATCAGCTTATGGCTTCTGTCTAAGCACCTGAACAGAGGACTGAAACCTCCACTGC AGGCTGGTTTTAGGTCTTGAATTATGTAAGAATCTTGCACAGCACTGCTAATGTAAATTTCAGTTGTTTTTCCCT CTAGGACAAACACTTACCAAAATATGCAACTTTTTTTTGGTGGGAAGAGAGATTGTCCTGTGATTTCTACCCATT TCCTGAGGCCTGTGGAAATAAACCTTTATGTACTTAAAGTTATACAGAAAATAGAATAAAGTTAATACCAAACTT G

 $\tt TTCTCGCTCCTTGGATCGCACATCCTCCCAG{\color{blue}ATC}{ATC}{\color{blue}CAGCGCCGGGACGACCCCGCCGCGCGCATGAGCCGGTCTTC}$ GGGCCGTAGCGGCTCCATGGACCCCTCCGGTGCCCACCCCTCGGTGCGTCAGACGCCGTCTCGGCAGCCGCCGCT CCCGTCCTTCACTCACGCCATGCAGCTGCTGACGGCAGAAATTGAGAAGGATTCAGAAAAGGAGACTCAAAAAAGGA TGATGAGGAGAATTACTTGGATTTATTTTCTCATAAGAACATGAAACTGAAAGAGCGAGTGCTGATACCTGTCAA GCAGTATCCCAAGTTCAATTTTGTGGGGAAGATTCTTGGACCACAAGGGAATACAATCAAAAGACTGCAGGAAGA GACTGGTGCAAAGATCTCTGTATTGGGAAAGGGCTCAATGAGAGACAAAGCCAAGGAGGAAGAGCTGCGCAAAGG TGGAGACCCCAAATATGCCCACTTGAATATGGATCTGCATGTCTTCATTGAAGTCTTTGGACCCCCATGTGAGGC GGAGCAATTTCTAGAGCTGTCCTACTTGAATGGAGTACCTGAACCCTCTCGTGGACGTGGGGTGCCAGTGAGAGG CCGGGGAGCTGCACCTCCTCCACCACCTGTTCCCAGGGGCCGTGGTGTTGGACCACCTCGGGGGGCTTTGGTACG TGGTACACCAGTAAGGGGAGCCATCACCAGAGGTGCCACTGTGACTCGAGGCGTGCCACCCCACCTACTGTGAG GGGTGCTCCAGCACCAAGAGCACGGGCAGCGGGCATCCAGAGGATACCTTTGCCTCCACCTCCTGCACCAGAAAC ATATGAAGAATATGGATATGATGATACATACGCAGAACAAAGTTACGAAGGCTACGAAGGCTATTACAGCCAGAG TCAAGGGGACTCAGAATATTATGACTATGGACATGGGGGAGGTTCAAGATTCTTATGAAGCTTATGGCCAGGACGA CTGGAATGGGACCAGGCCGTCGCTGAAGGCCCCTCCTGCTAGGCCAGTGAAGGGAGCATACAGAGAGCACCCATA TGGACGTTAT<u>TAA</u>AAACAAACATGAGGGGAAAATATCAGTTATGAGCAAAGTTGTTACTGATTTCTTGTATCTCC CAGGATTCCTGTTGCTTTACCCACAACAGACAAGTAATTGTCTAAGTGTTTTTCTTCGTGGTCCCCTTCTTCTCC GAATATTGAATTAATTTTTAAGTGTGTAGATGCTTTTTTCTTTGTTGTTTAAATATAAACAGAAGTGTACCTTT TAAAGGTTCTGAAGTAAAGGCTTGTTAAGTTTCTCTTAGTTTTGATTTGAGGCATCCCGTAAAGTTGTAGTTGCA GAATCCCAAACTAGGCTACATTTCAAAATTCAGGGCTGTTTAAGATTTAAAATCACAAACATTAACGGCAGTAGG CACCACCATGTAAAAGTGAGCTCAGACGTCTCTAAAAAATGTTTCCTTTATAAAAGCACATGGCGGTTGAATCTT AAGGTTAAATTTTAATATGAAAGATCCTCATGAATTAAATAGTTGATGCAATTTTTAACGTTAATTGATATAAAA AAAAAACAACAAAATTAGGCTTGTAAAACTGACTTTTTCATTACGTGGGTTTTGAAATCTAGCCCCAGACATAC ATTGAGTTTGATGCAGAGCTTTTTAGCCATGAAGAATCTTTCAGTCATAGTACTAATAATTAAATTTTCAGTATT TAAAAAGACAAAGTATTTTGTCCATTTGAGATTCTGCACTCCATGAAAAGTTCACTTGGACGCTGGGGCCAAAAG CTGTTGATTTTCTTAAGTTGACGGTTGTCAATATATCGAACTGTTCCCAAGTTAGTCAAGTATGTCTCAACACTA GCATGATATAAAAAGGGACACTGCAGCTGAATGAAAAAGGAATCAAAATCCACTTTGTACATAAGTTAAAGTCCT AATTGGATTTGTACCGTCCTCCCATTTTGTTCTCGGAAGATTAAATGCTACATGTGTAAGTCTGCCTAAATAGGT AGCTTAAACTTATGTCAAAATGTCTGCAGCAGTTTGTCAATAAAGTTTAGTCCTTTTTTA

156/6881 FIGURE 147

MQRRDDPAARMSRSSGRSGSMDPSGAHPSVRQTPSRQPPLPHRSRGGGGGSRGGARASPATQPPPLLPPSATGPD
ATVGGPAPTPLLPPSATASVKMEPENKYLPELMAEKDSLDPSFTHAMQLLTAEIEKIQKGDSKKDDEENYLDLFS
HKNMKLKERVLIPVKQYPKFNFVGKILGPQGNTIKRLQEETGAKISVLGKGSMRDKAKEEELRKGGDPKYAHLNM
DLHVFIEVFGPPCEAYALMAHAMEEVKKFLVPDMMDDICQEQFLELSYLNGVPEPSRGRGVPVRGRGAAPPPPPV
PRGRGVGPPRGALVRGTPVRGAITRGATVTRGVPPPPTVRGAPAPRARTAGIQRIPLPPPPAPETYEEYGYDDTY
AEQSYEGYEGYYSQSQGDSEYYDYGHGEVQDSYEAYGQDDWNGTRPSLKAPPARPVKGAYREHPYGRY

CTCGCGTCACAGCCGGGATGAAGCCGATCCTACTGCAGGGCCATGAGCGGTCCATTACGCAGATTAAGTATAACC GCGAAGGACCTCCTCTTTACTGTGGCCAAGGACCCTATCGTCAATGTATGGTACTCTGTGAATGGTGAGAGGC GCTCAGCTGACAACAGCTGTCGTCTCTGGGACTGTGAAACAGGAAAGCAGCTGGCCCTTCTCAAGACCAATTCGG CTGTCCGGACCTGCGGTTTTGACTTTGGGGGCAACATCATCATCTTCTCCACGGACAAGCAGATGGGCTACCAGT GCTTTGTGAGCTTTTTTGACCTGCGGGATCCGAGCCAGATTGACAACAATGAGCCCTACATGAAGATCCCTTGCA ATGACTCTAAAATCACCAGTGCTGTTTGGGGACCCCTGGGGGAGTGCATCATCGCTGGCCATGAGAGTGGAGAGC TCAACCAGTATAGTGCCAAGTCTGGAGAGGTGTTGGTGAATGTTAAGGAGCACTCCCGGCAGATCAACGACATCC ${\tt AGTTATCCAGGGACATGACCATGTTTGTGACCGCGTCCAAGGACAACACAGCCAAGCTTTTTGACTCCACAACTC}$ TTGAACATCAGAAGACTTTCCGGACAGAACGTCCTGTCAACTCAGCTGCCCTCTCCCCCAACTATGACCATGTGG ${\tt TCCTGGGCGGTGGTCAGGAAGCCATGGATGTAACCACAACCTCCACCAGGATTGGCAAGTTTGAGGCCAGGTTCT}$ TCCATTTGGCCTTTGAAGAAGAGTTTGGAAGAGTCAAGGGTCACTTTGGACCTATCAACAGTGTTGCCTTCCATC $\verb|CTGATGGCAAGAGCTACAGCAGCGGGGGGAAGATGGTTACGTCCGTATCCATTACTTCGACCCACAGTACTTTG|\\$ AATTTGAGTTTGAGGCT<u>TAAGAAGCTGGATCTCCTGCCGGGCGTGGTTGGCTCATGCCTGTAATCCCACCACTT</u>T $\tt TTTTTTAAGGCAGGCGGATCACCTGAGGTCAGGAGTTTAAGACCAGCCTGACCAACATGGAGAAACCTCGTCTCT$ ACTAAAAATACAAAAATTAGCCAGGCATGGTGGCACACGCCTATAGTCCCAGCTACTCAGGAGGCTGAGGCAGGA GAATCACTTGAACCCAGGAGGCAGAGGTTGCAGTGAGCTGAGATCACGTCATTGCACTCCATCCTGAGCCACAAG AGCAAAACTCCGTCTCAAAAAAAAAAAAAAAAGAGGTGGATCTCCAACCAGGCCAGAGAAGATTCTCACAGAAGG TTTTGAACTCTAAGAAATAAATTGGTTTGGTAATAAATGGCTTCTGGTCAGA

158/6881 FIGURE 149

MKPILLQGHERSITQIKYNREGDLLFTVAKDPIVNVWYSVNGERLGTYMGHTGAVWCVDADWDTKHVLTGSADNS CRLWDCETGKQLALLKTNSAVRTCGFDFGGNIIMFSTDKQMGYQCFVSFFDLRDPSQIDNNEPYMKIPCNDSKIT SAVWGPLGECIIAGHESGELNQYSAKSGEVLVNVKEHSRQINDIQLSRDMTMFVTASKDNTAKLFDSTTLEHQKT FRTERPVNSAALSPNYDHVVLGGGQEAMDVTTTSTRIGKFEARFFHLAFEEEFGRVKGHFGPINSVAFHPDGKSY SSGGEDGYVRIHYFDPQYFEFEFEA

159/6881 FIGURE 150

CAGGGCACCCGGAGGAAAGTCTGTTACTACTACGACGGGGATGTTGGAAATTACTATTATGGACAAGGCCACCCA ATGAAGCCTCACCGAATCCGCATGACTCATAATTTGCTGCTCAACTATGGTCTCTACCGAAAAATGGAAATCTAT CGCCCTCACAAAGCCAATGCTGAGGAGATGACCAAGTACCACAGCGATGACTACATTAAATTCTTGCGCTCCATC CGTCCAGATAACATGTCGGAGTACAGCAAGCAGATGCAGAGATTCAACGTTGGTGAGGACTGTCCAGTATTCGAT GGCCTGTTTGAGTTCTGTCAGTTGTCTACTGGTGGTTCTGTGGCAAGTGCTGTGAAACTTAATAAGCAGCAGACG GACATCGCTGTGAATTGGGCTGGGGGCCTGCACCATGCAAAGAAGTCCGAGGCATCTGGCTTCTGTTACGTCAAT GATATCGTCTTGGCCATCCTGGAACTGCTAAAGTATCACCAGAGGGTGCTGTACATTGACATTGATATTCACCAT GGTGACGGCGTGGAAGAGGCCTTCTACACCACGGACCGGGTCATGACTGTGTCCTTTCATAAGTATGGAGAGTAC TTCCCAGGAACTGGGGACCTACGGGATATCGGGGCTGGCAAAGGCAAGTATTATGCTGTTAACTACCCGCTCCGA GACGGGATTGATGACGAGTCCTATGAGGCCATTTTCAAGCCGGTCATGTCCAAAGTAATGGAGATGTTCCAGCCT AGTGCGGTGGTCTTACAGTGTGGCTCAGACTCCCTATCTGGGGATCGGTTAGGTTGCTTCAATCTAACTATCAAAA GGACACGCCAAGTGTGGGAATTTGTCAAGAGCTTTAACCTGCCTATGCTGATGCTGGGAGGCGGTGGTTACACC ATTCGTAACGTTGCCCGGTGCTGGACATATGAGACAGCTGTGGCCCTGGATACGGAGATCCCTAATGAGCTTCCA TACAATGACTACTTTGAATACTTTGGACCAGATTTCAAGCTCCACATCAGTCCTTCCAATATGACTAACCAGAAC CANATGCAGGCGATTCCTGAGGACGCCATCCCTGAGGAGAGTGGCGATGAGGACGAAGACGACCCTGACAAGCGC ATCTCGATCTGCTCCTCTGACAAACGAATTGCCTGTGAGGAAGAGTTCTCCGATTCTGAAGAGGAGGAGGAGGGG GGCCGCAAGAACTCTTCCAACTTCAAAAAAGCCAAGAGAGTCAAAACAGAGGATGAAAAAGAGAAAAGACCCAGAG GAGAAGAAGAAGTCACCGAAGAGGAGAAAACCAAGGAGGAGAAGCCAGAAGCCAAAGGGGTCAAGGAGGAGGTC AAGTTGGCCTGAATGGACCTCTCCAGCTCTGGCTTCCTGAGTCCCTCACGTTTCTTCCCCAACCCCTCAGAT TTTATATITTCTATTTCTCTGTGTATTTATATAAAAATTTATTAAATATAAAAATATCCCCAGGGACAGAAACCAAG GCCCCGAGCTCAGGGCAGCTGTGCTGGGTGAGCTCTTCCAGGAGCCACCTTGCCACCCATTCTTCCCGTTCTTAA CTTTGAACCATAAAGGGTGCCAGGTCTGGGTGAAAGGGATACTTTTATGCAACCATAAGACAAACTCCTGAAATG CCAAGTGCCTGCTTAGTAGCTTTGGAAAGGTGCCCTTATTGAACATTCTAGAAGGGGTGGCTGGGTCTTCAAGGA TCTCCTGTTTTTTCAGGCTCCTAAAGTAACATCAGCCATTTTTAGATTGGTTCTGTTTTCGTACCTTCCCACTG TAGTTTCCTTTTTGAGATACTATTTTCATTTTTGTGAGCCTCTTTGTAATAAAATGGTACATTTCT

MAQTQGTRRKVCYYYDGDVGNYYYGQGHPMKPHRIRMTHNLLLNYGLYRKMEIYRPHKANAEEMTKYHSDDYIKF LRSIRPDNMSEYSKQMQRFNVGEDCPVFDGLFEFCQLSTGGSVASAVKLNKQQTDIAVNWAGGLHHAKKSEASGF CYVNDIVLAILELLKYHQRVLYIDIDIHHGDGVEEAFYTTDRVMTVSFHKYGEYFPGTGDLRDIGAGKGKYYAVN YPLRDGIDDESYEAIFKPVMSKVMEMFQPSAVVLQCGSDSLSGDRLGCFNLTIKGHAKCVEFVKSFNLPMLMLGG GGYTIRNVARCWTYETAVALDTEIPNELPYNDYFEYFGPDFKLHISPSNMTNQNTNEYLEKIKQRLFENLRMLPH APGVQMQAIPEDAIPEESGDEDEDDPDKRISICSSDKRIACEEEFSDSEEEGEGGRKNSSNFKKAKRVKTEDEKE KDPEEKKEVTEEEKTKEEKPEAKGVKEEVKLA

GGCACGAGGGCGCGGAGCGGAGCGGCGGGGGGCGCAGCTAGCGGGTCGGCCGCGGAGCGGAGGTGCAGCTCGGCT CCCGGGGCGACGTGACCGCCGAGGAGGCAGCAGCGCTTCCCCCGCGAAGGCCAACGGCCAGGAGAATGGCCACG TGAAAAGCAATGGAGACTTATCCCCCAAGGGTGAAGGGGAGTCGCCCCCTGTGAACGGAACAGATGAGGCAGCCG GGGCCACTGGCGATGCCATCGAGCCAGCACCCCCTAGCCAGGGTGCTGAGGCCAAGGGGGAGGTCCCCCCAAGG AGACCCCCAAGAAGAAGAAGAATTCTCTTTCAAGAAGCCTTTCAAATTGAGCGGCCTGTCCTTCAAGAGAAATC GGAAGGAGGTGGGGGTGATTCTTCTGCCTCCTCACCCACAGAGGAAGAGCAGGAGCAGGGGGGAGATCGGTGCCT GCAGCGAGGGCACTGCTCAGGAAGGGAAGGCCGCAGCCCCTGAGAGCCCAGGAACCCCAGGCCAAGGGG CAGAGGCTAGTGCAGCCTCAGAAGAAGAGGCAGGGCCCCAGGCTACAGAGCCATCCACTCCCTCGGGGCCGGAGA GTGGCCCTACACCAGCCAGCGCTGAGCAGAATGAG<u>TAG</u>CTAGGTAGGGGCAGGTGGGTGATCTCTAAGCTGCAAA CTCTTAAGGCCAGTTGAAGATGGTCCCTTACAGCTTCCCAAGTTAGGTTAGTGATGTGAAATGCTCCTGTCCCTG GCCCTACCTCCCTGTCCCCACCCCTGCATAAGGCAGTTGTTGGTTTTCTTCCCCAATTCTTTTCCAAGTAG GTTTTGTTTACCCTACTCCCCAAATCCCTGAGCCAGAAGTGGGGTGCTTATACTCCCAAACCTTGAGTGTCCAGC CTTCCCCTGTTGTTTTTAGTCTCTTGTGCTGTGCCTAGTGCCACCTGGGCTGGGGAGGACACTGCCCCGTCTAGG TTTTTATAAATGTCTTACTCAAGTTCAAACCTCCAGCCTGTGAATCAACTGTGTCTCTTTTTTGACTTGGTAAGC

162/6881 FIGURE 153

MGSQSSKAPRGDVTAEEAAGASPAKANGQENGHVKSNGDLSPKGEGESPPVNGTDEAAGATGDAIEPAPPSQGAE AKGEVPPKETPKKKKKFSFKKPFKLSGLSFKRNRKEGGGDSSASSPTEEEQEQGEIGACSDEGTAQEGKAAATPE SQEPQAKGAEASAASEEEAGPQATEPSTPSGPESGPTPASAEQNE

GCTCCCATTGGCTGATGTTGGCGCGAAGGTGCGCGAGTCAGCCCTCGCGCTGGGGGGCGCAGGAAACAATAGAGGC CTGCCCGCCATGGCCGACAAGGAAGCAGCCTTCGACGACGACGAGGAAGAACGAGTGATCAACGAGGAATACAAA ATATGGAAAAGAACACCCCTTTTCTTTATGATTTGGTGATGACCCATGCTCTGGAGTGGCCCAGCCTAACTGCC CAGTGGCTTCCAGATGTAACCAGAATTTGGAGGTTTTGGTTCAGTTAGTGGAAAAATTGAAATAGAAATCAAGAT CAACCATGAAGGAGAAGTAAACAGGGCCCGTTATATGCCCCAGAACCCTTGTATCATCGCAACAAAGACTCCTTC CAGTGATGTTCTTGTTTTTGACTATACAAAACATCCTTCTAAACCAGATCCTTCTGGAGAGTGCAACCCAGACTT TTCAGATGACCATACCATCTGCCTGTGGGACATCAGTGCCGTTCCAAAGGAGGGGAAAAGTGGTAGATGCGAAGAC CATCTTTACAGGGCATACGGCAGTAGTAGAAGATGTTTCCTGGCATCTACTCCATGAGTCTCTGTTTGGGTCAGT TGCTGATGATCAGAAACTTATGATTTGGGATACTCGTTCAAACAATACTTCCAAACCAAGCCACTCAGTTGATGC ${\tt TCACACTGCTGAAGTGAACTGCCTTTCTTTCAATCCTTATAGTGAGTTCATTCTTGCCACAGGATCAGCTGACAA}$ GACTGTTGCCTTGTGGGATCTGAGAAATCTGAAACTTAAGTTGCATTCCTTTGAGTCACATAAGGATGAAATATT CCAGGTTCAGTGGTCACCTCACAATGAGACTATTTTAGCTTCCAGTGGTACTGATCGCAGACTGAATGTCTGGGA TTTAAGTAAAATTGGAGAGGAACAATCCCCAGAAGATGCAGAAGACGGGCCACCAGAGTTGTTTATTCATGG ${\tt TGGTCATACTGCCAAGATATCTGATTTCTCCTGGAATCCCAATGAACCTTGGGTGATTTGTTCTGTATCAGAAGA}$ CAATATCATGCAAGTGTGGCAAATGGAGTTAGTCCTTGACCACTAGTTTGATGCCATCTCCATTTTGGGTGACCT GTTTCACCAGCAGGCCTGTTACTCTCCATGACTAACTGTGTAAGTGCTTAAAATGGAATAAATTGCTTTTCTACA TAA

FIGURE 155A

GGCTCGCATCCCCATAGTGCTGGGTTACAGTGAAGGTACGCCCCGCGCTCTGCTCTGGAGAGGCAGGGTGGGATA $\tt GGGAACGTCTCGAGTGGCCCCCGCAGTC\underline{ATC} \tt GTGGTGTTCGTTGGCCGCCGCCTCCCGGCGCTCCTAGGGCTGTT$ TAAGAAGAAGGCTCTGCCAAGGCTGAGAATGACAAACATCTAAGTGTAGGGCCTGGCCAGGGGCCAGGGTCTGC AGTGGATGAGCACCAGGACAACGTCTTCTTTCCCAGTGGGCGACCCCCCACCTGGAAGAGCTGCACACTCAGGC CCAGGAGGGGCTCCGCTCCCTACAACACCAAGAGAAACAGAAACTGAACAAGGGTGGCTGGGACCATGGAGACAC CCAGAGTATCCAGTCCTCCGGACGGGCCGGATGAAGACAACATCTCCTTCTGCAGTCAGACCACATCCTACGT GGCTGAGAGCTCCACAGCAGAGGACGCGCTCTCCATCCGCTCGGAGATGATCCAGCGCAAAGGCTCCACCTTCCG $\tt CCCGCAGCATGTGCAGAAGGAGCTTGGCCTGAGGAATGAGCGTGAGGCACCAGGCACGCCCCGGGCTCCTGGTGC$ ACGGGATGCCGTACGCATCCCCACAGTGGACGCCCCCCGAGGCACCTCAGGGATGGGGGCCCGGGTGTCCCT ${\tt GCAGGCGCTGGAGGCGGAGGCTGGCGCTGAGACAGAGGCCATGCTGCAGCGCCACATTGACCGTGTCTA}$ $\tt CCGGGATGACACCTTTGTTGGCCGGTCCACGGGTACCCGGGCCCACCATTGACCCGGCCCATGTCCCTAGCAGT$ GCCTGGATTGACAGGAGGGCCAGGGCCTGCAGAGCCCCTGAGCCCGGCCATGTCCATCTCCCCCCAGGCCACCTA CCTGTCGAAGTTGATTCCACATGCTGTGCTGCCGCCTACAGTGGACGTGGTGGCCCTAGGCCGCTGCAGCCTGCG CAGCCCACAGCCGCAGCCGCCACCCATCCTCCTCCAGTGACACCTGGAGCCACTCTCAATCCTCCGACACCAT TGTGTCTGACGGTTCCACCCTCTCCTCTAAGGGTGGCTCTGAGGGCCAGCCGGAGAGCTCTACGGCTAGCAATAG ACTCAGCATTCGGAGCAGTGGCCAGTTGTCTGGCCGGAGTGTGTCCCTGCGTAAGCTGAAGCGGCCTCCACCCCC TCCCCGCCGGACCCACTCCCTCCATCAGCGGGGCTTAGCAGTGCCTGATGGGCCATTAGGGTTGCCCCCTAAGCC TCCACCCAACCCAGCCAACAGCTGGGTACCTGGCTTGTCTCCGGGTGGTTCCCGGCGCCCCCCACGGTCCCCAGA TCCCCCTGCTTCCCCAGGCAAGGCCCAGCCCCCTAAACCAGAGCGTGTCACGTCTCTTCGCTCCCCTGGGGCCTC ${\tt CGTCTCCTCTCACGTCTTTATGTTCCTCCTCTCTGACCCAGCCCCCTCAGACCGCTCTGGGCCACAGAT}$ TGACGCCAGTCCTCAGTCCCCCCCCCCCAGACAACCTTGACTCCACTGCAGGAGTCTCCTGTCATCTCCAA TGTGGAGGCACCATCTGCCTCAGAGACTGCTGAGGAGCCCCTCCAAGATCCCAACTGGCCCCCTCCCCCACCCCC TGCCCCTGAGGAGCAGGACCTGTCCATGGCTGACTTCCCCCCACCAGAGGAGGCTTTTTTCTCTGTGGCCAGCCC TGAGCCTGCAGGCCCTTCAGGCTCCCCAGAGCTTGTCAGCTCCCCGGCTGCTTCGTCCTCCTCAGCTACTGCTTT GCAGATTCAGCCCCGGGTAGCCCAGACCCTCCTCCAGCTCCGCCAGCCCCAGCTCCTGCTAGTTCCGCCCAGG GCATGTGGCCAAGCTCCCTCAGAAGGAACCGGTGGGCTGTAGCAAGGGTGGTGGGCCTCCCAGGGAGGACGTAGG TGCGCCCCTGGTCACGCCCTCGCTCCTGCAGATGGTGCGGCTGCGCTCCGTGGGTGCTCCAGGAGGGGCTCCCAC CCCCTCCTCAGGGCTCCATGCTGCGGTCCGACTCAAGGCCTGCAGCCTGGCCGCCAGTGAAGGCCTCTCAAGTGC TCAGCCCAACGGACCGCCTGAGGCAGAGCCACGGCCTCCCCAGTCCCCTGCCTCAACGGCCAGTTTCATCTTCTC CAAGGGCTCTAGGAAGCTGCAGCTGGAGCCGCCCGTGTCCCCTGAGACCCAGGCTGACCTCCAGCGGAATCTGGT GGCAGAACTCCGGAGCATCTCAGAGCAGCGGCCACCCCAGGCCCCAAAGAAGTCACCTAAGGCTCCCCCACCTGT GGCCCGCAAGCCGTCTGTGGGAGTCCCCCCACCCGCCTCCCCCAGTTACCCTCGAGCTGAGCCCCTTACTGCTCC TCCCACCAATGGGCTCCCTCACACCCAGGACAGGACTAAGAGGGAGCTGGCGGAGAATGGAGGTGTCCTGCAGCT GGTGGGCCCAGAGGAGAAGATGGGCCTCCCGGGCTCAGACTCACAGAAAGAGCTGGCC<u>TGA</u>CCACCAGGCACCTC ACTGGCACTGCTGACCCATCCCAGAAACAATCTCAGGGACCCGAGCAGCTCCAAGGACGAGAGGATACAGCAG ${\tt ACACAACCTAATAGAGAGGGGGGCCTGCAGCCTTAACCTCCACGGCCTTCGATACTTATGCAAGCCTGGTGTTGCT}$ CCTGTCCTCAGAGTCATCCTGCGCTCATGCCTTTTCCCGAATGGGTTCACCTCTGGCAGTTGCCGCTTCAGTCTT GGCCTTAGCCTCATCTTGAAGTGGGTAGCTGGCGGGAGAGGGTGGCTGCCCCCTGCTGGCCCTGAGGCTGCAG

FIGURE 155B

CAAAGCACTTTTGAAAAGTGGCTGCATGGCCATCCTCCAGGGCCCAGGAAGTTGCATTCCAAGGGCCTGTTTACA TGGCAGCAGAATCCATCCCCGGCAGTCAGCCCATAGCTTGGGACCAGTCTGTGCCCTCCTGCCCAGTCCAGTTTA CTCCTCTTGGTTCCTGAAGGTGGCCAAGTCATTGTGTTCCCACAGGCTTCTCTAGGCTGGGGGCAGGTGTGGGGC CTTCCAGTTCTGCCAGGTGCTCCATGCTGGGGACAAGTAGGAGACTGCCAGGGCCCAAAGAAATGGGTGAGCAGT CGGTGCATGTCCTTTCTGCAGCTGCCTTTCAGCACAGGTGGTTCCACTGGGGGCAGCTAACGCTGAGTGACAAGG ATGGGAAGCCACAGGTGCATTTTACTCAAGTCTTCTCTAGTCAATGAGGGGCACCCAGTGCTTCTAGGGCAGGCT GGGTGGTGCCCCTAGGTATCAGCCTCTCTTACTGTACTCTCCGGGAATGTTAACCTTTCTATTTTCAGCCTGT GCCACCTGTCTAGGCAAGCTGGCTTCCCCATTGGCCCCTGTGGGTCCACAGCAGCGTGGCTGCCCCCCAGGGCCA CCGCTTCTTTCTTGATCCTCTTTCCTTAACAGTGACTTGGGCTTGAGTCTGGCAAGGAACCTTGCTTTTAGCTTC ACCACCAAGGAGAGAGGTTGACATGACCTCCCCGCCCCTCACCAAGGCTGGGAACAGAGGGGATGTGGTGAGAG ATTCTTCCCTTGCCTGTGGGCAGTGGAGAGTGCTGCTGGGTGTACGCTGCACCTGCCCACTGAGTTGGGGAAAGA GGATAATCAGTGAGCACTGTTCTGCTCAGAGCTCCTGATCTACCCCACCCCCTAGGATCCAGGACTGGGTCAAAG ACAAAGGAGAAGGGGTCTAGAAGAGGCCCCTTCTTTGTCCTCTGGGGTAAATGAGCTTGACCTAGAGTAA AACTGTGTTTCATTTAAAGATGTTAATTAAATGATTGAAACTTG

MVVFVGRRLPALLGLFKKKGSAKAENDKHLSVGPGQGPGSAVDEHQDNVFFPSGRPPHLEELHTQAQEGLRSLQH
QEKQKLNKGGWDHGDTQSIQSSRTGPDEDNISFCSQTTSYVAESSTAEDALSIRSEMIQRKGSTFRPHDSFPKSG
KSGRRRERRSTVLGLPQHVQKELGLRNEREAPGTPRAPGARDAVRIPTVDGRPRGTSGMGARVSLQALEAEAEA
GAETEAMLQRHIDRVYRDDTFVGRSTGTRAPPLTRPMSLAVPGLTGGAGPAEPLSPAMSISPQATYLSKLIPHAV
LPPTVDVVALGRCSLRTLSRCSLHSASPASVRSLGRFSSVSSPQPRSRHPSSSSDTWSHSQSSDTIVSDGSTLSS
KGGSEGQPESSTASNSVVPPPQGGSGRGSPSGGSTAEASDTLSIRSSGQLSGRSVSLRKLKRPPPPPRRTHSLHQ
RGLAVPDGPLGLPPKPERKQQPQLPRPPTTGGSEGAGAAPCPPNPANSWVPGLSPGGSRRPPRSPERTLSPSSGY
SSQSGTPTLPPKGLAGPPASPGKAQPPKPERVTSLRSPGASVSSSLTSLCSSSSDPAPSDRSGPQILTPLGDRFV
IPPHPKVPAPFSPPPSKPRSPNPAAPALAAPAVVPGPVSTTDASPQSPPTPQTTLTPLQESPVISKDQSPPPSPP
PSYHPPPPPTKKPEVVVEAPSASETAEEPLQDPNWPPPPPAPEEQDLSMADFPPPEEAFFSVASPEPAGPSGSP
ELVSSPAASSSSATALQIQPPGSPDPPPAPPAPAPASSAPGHVAKLPQKEPVGCSKGGGPPREDVGAPLVTPSLL
QMVRLRSVGAPGGAPTPALGPSAPQKPLRRALSGRASPVPAPSSGLHAAVRLKACSLAASEGLSSAQPNGPPEAE
PRPPQSPASTASFIFSKGSRKLQLERPVSPETQADLQRNLVAELRSISEQRPPQAPKKSPKAPPPVARKPSVGVP
PPASPSYPRAEPLTAPPTNGLPHTQDRTKRELAENGGVLQLVGPEEKMGLPGSDSQKELA

ATGGGGGACGCTCCCAGCCCTGAAGAGAAACTGCACCTTATCACCCGGAACCTGCAGGAGGTTCTGGGGGAAGAG AAGCTGAAGGAGATACTGAAGGAGCGGGAACTTAAAATTTACTGGGGAACGACCACACGGGCAAACCACATGTG GCTTACTTTGTGCCCATGTCAAAGATTGCAGACTTCTTAAAGGCAGGGTGTGAGGTAACAATTCTGTTTGCGGAC CTCCACGCATACCTGGATAACATGAAAGCCCCATGGGAACTTCTAGAACTCCGAGTCAGTTACTATGAGAATGTG ATCAAAGCAATGCTGGAGAGCATTGGTGTGCCCTTGGAGAAGCTCAAGTTCATCAAAGGCACTGATTACCAGCTC AGCAAAGAGTACACACTAGATGTGTACAGACTCTCCTCCGTGGTCACACAGCACGATTCCAAGAAGGCTGGAGCT GAGGTGGTAAAGCAGGTGGAGCACCCTTTGCTGAGTGGCCTCTTATACCCCGGACTGCAGGCTTTGGATGAAGAG TATTTAAAAGTAGATGCCCAATTTGGAGGCATTGATCAGAGAAAGATTTTCACCTTTGCAGAGAAGTACCTCCCT GCACTTGGCTATTCAAAACGGGTCCATCTGATGAATCCTATGGTTCCAGGATTAACAGGCAGCAAAATGAGCTCT TCAGAAGAGGAGTCCAAGATTGATCTCCTTGATCGGAAGGAGGATGTGAAGAAAAAACTGAAGAAGGCCTTCTGT GAGCCAGGAAATGTGGAGAACAATGGGGTTCTGTCCTTCATCAAGCATGTCCTTTTTCCCCTTAAGTCCGAGTTT GTGATCCTACGAGATGAGAAATGGGGTGGAAACAAAACCTACACGCTTACGTGGACCTGGAAAAGGACTTTGCT GCTGAGGTTGTACATCCTGGAGACCTGAAGAATTCTGTTGAAGTCGCACTGAACAAGTTGCTGGATCCAATCCGG GAAAAGTTTAATACCCCTGCCCTGAAAAAACTGGCCAGCGCTGCCTACCCAGATCCCTCAAAGCAGAAGCCAATG GCCAAAGGCCCTGCCAAGAATTCAGAACCAGAGGAGGTCATCCCATCCCGGCTGGATATCCGTGTGGGGAAAATC ACTGTGGTGAGCGGCCTGGTACAGTTCGTGCCCAAGGAGGAACTGCAGGACAGGCTGGTAGTGGTGCTGTGCAAC CTGAAACCCCAGAAGATGAGAGGAGTCCGAGTCCCAAGGCATGCTTCTGTGTGCTTCTATAGAAGGGATAAACCGC CAGGTTGAACCTCTGGACCCTCCGGCAGGCTCTGCTCCTGGTGAGCACGTGTTTGTGAAGGGCTATGAAAAGGGC CAACCAGATGAGGAGCTCAAGCCCAAGAAGAAGTCTTCGAGAAGTTGCAGGCTGACTTCAAAATTTCTGAGGAG TGCATCGCACAGTGGAAGCAAACCAACTTCATGACCAAGCTGGGCTCCATTTCCTGTAAATCGCTGAAAGGGGGG $\texttt{AACATTAGC} \underline{\textbf{TAG}} \texttt{CCAGCCCAGCATCTTCCCCCCTTCTTCCACCACTGAGTCATCTGCTGTTCTTCAGTCTGCTC}$ CATCCATCACCCATTTACCCATCTCTCAGGACA

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MGDAPSPEEKLHLITRNLQEVLGEEKLKEILKERELKIYWGTATTGKPHVAYFVPMSKIADFLKAGCEVTILFAD LHAYLDNMKAPWELLELRVSYYENVIKAMLESIGVPLEKLKFIKGTDYQLSKEYTLDVYRLSSVVTQHDSKKAGA EVVKQVEHPLLSGLLYPGLQALDEEYLKVDAQFGGIDQRKIFTFAEKYLPALGYSKRVHLMNPMVPGLTGSKMSS SEEESKIDLLDRKEDVKKKLKKAFCEPGNVENNGVLSFIKHVLFPLKSEFVILRDEKWGGNKTYTAYVDLEKDFA AEVVHPGDLKNSVEVALNKLLDPIREKFNTPALKKLASAAYPDPSKQKPMAKGPAKNSEPEEVIPSRLDIRVGKI ITVEKHPDADSLYVEKIDVGEAEPRTVVSGLVQFVPKEELQDRLVVVLCNLKPQKMRGVESQGMLLCASIEGINR QVEPLDPPAGSAPGEHVFVKGYEKGQPDEELKPKKKVFEKLQADFKISEECIAQWKQTNFMTKLGSISCKSLKGG NIS

TTCATGCTGCGTTCATTCCTTTTGGAGACATCACAGATATTCAGATTCCTCTGGATTATGAAACAGAAAAGCACC CAGATGATGACTGGTTGAAGAAGTTTTCTGGGAAGACGCTTGAAGAGAATAAAGAGGAAGAAGGGTCAGAGCCTC CCAAAGCAGAGACCCAGGAGGGAGAGCCCATTGCTAAAAAGGCCCGCTCAAATCCTCAGGTGTACATGGACATCA AGATTGGGAACAAGCCGGCTGGCCGCATCCAGATGCTCCTGCGTTCTGATGTCGTGCCCATGACAGCAGAGAATT TCCGCTGCCTGTGCACTCATGAAAAGGGCTTTGGCTTTAAGGGAAGCAGCTTCCACCGCATCATCCCCCAGTTCA TGTGCCAGGGCGGTGATTTCACAAACCACAATGGCACTGGGGGCAAGTCCATCTATGGGAAGAAGTTCGATGATG AAAACTTTATCCTCAAGCATACGGGACCAGGTCTACTATCCATGGCCAACTCTGGCCCAAACACCAATGGCTCTC AGTTCTTCCTGACATGTGACAAGACAGACTGGCTGGATGGCAAGCATGTGGTGTTTTGGAGAGGTCACCGAAGGCC TAGATGTCTTGCGGCAAATTGAGGCCCAGGGCAGCAAGGAGGGAAGCCAAAGCAGAAGGTGATCATCGCCGACT GGTCTGCTTGGAGCAGCTCCTCTGCAGGCACAGCCTGGACTATTCCCAGGCACAGCTGTGGGCCCAGGAGCCAGC TCAGGTGCTCCCCTCCACCATGGGCAGGCTGTGCAAAAAAGCCACTGGCTTTTCTCAGCATTTGCTGCTGGGCCT AAAAAAAAA

MATTKRVLYVGGLAEEVDDKVLHAAFIPFGDITDIQIPLDYETEKHRGFAFVEFELAEDAAAAIDNMNESELFGR TIRVNLAKPMRIKEGSSRPVWSDDDWLKKFSGKTLEENKEEEGSEPPKAETQEGEPIAKKARSNPQVYMDIKIGN KPAGRIQMLLRSDVVPMTAENFRCLCTHEKGFGFKGSSFHRIIPQFMCQGGDFTNHNGTGGKSIYGKKFDDENFI LKHTGPGLLSMANSGPNTNGSQFFLTCDKTDWLDGKHVVFGEVTEGLDVLRQIEAQGSKDGKPKQKVIIADCGEY

AAGCCTGGCGGCAGTCAGCAGTGTCACCCTCCCACACCTGATACTGGGCCTCAGAATGGACATCCCGAGGGCGTG CCCCACACCCCTCAACGCAGGTTCCAGCACACTTCAGCTGTCATCTTACAACTGCAGCCTGCTTCACCAGTGCCC CAGCAGTGTGTCCCTGATGACTGGAAAGAAGTGGCCACCAGGGGAGAAAAGTGTGCCTGAGACGCGGTCTGGCCCA TCACCACATCAGCAGGCTATTGTCACTGCCATGCCTGGTGGCCTGTACCCACGAGCCCTAACATCCAGCCG AACGGAAACTCTGCCTCCAGCATCGCCGGCACTGCCCCCCAGAATGGTGAGAATAAACCACCACAGGCCATTGTG CTCAAGTGTGAGCTCTGTGGCCGGGTGGACTTTGCCTATAAGTTCAAGCGTTCCAAGCGCTTCTGTTCCATGGCT TGTGCAAAGAGGTACAACGTGGGATGCACCAAACGGGTGGGACTTTTCCACTCAGACCGGAGCAAGCTGCAGAAG GCAGGAGCTGCGACCCACAACCGCCGTCGGGCCAGCAAAGCCAGTCTGCCACCACTTACCAAGGATACCAAGAAG CAGCCAACAGGCACTGTGCCCCTTTCGGTTACTGCTGCTTTGCAGCTAACACACAGCCAGGAAGACTCCAGCCGT GGCCAGCGGGACCTGGAGCTCCCCGACATGCATATGCGGGACCTGGTGGGCATGGGACACCACTTCCTGCCAAGT GAGCCCACCAAGTGGAATGTAGAAGACGTCTACGAATTCATCCGCTCTCTGCCAGGCTGCCAGGAGATAGCAGAG GAATTCCGTGCCCAGGAAATCGACGGGCAAGCCCTGCTGCTGCTCAAGGAGGACCACCTGATGAGCGCCATGAAC ${\tt ATCAAGCTGGGGCCCGCCTGAAGATCTACGCCCGCATCAGCATGCTCAAGGACTCC} {\color{red}{\underline{\textbf{TAG}}}} {\color{red}{\textbf{GGCTGGTGGCAGCCA}}}$ CGGTTGGAGGGCAGGGGCTCTCCCTAGGGGCATAGCTGGTGAGGAGGTCTGGGCACCTCCTCCATGGCTCTCAGG CGCCTTTCATTTCTGTGGGAGGGGCAGAGAGGTAGGTGGCACAGAAGATGGGGCTTTATGCTTGTAAATATTGAT AGCACTGGCTTCCTCCAAAGTCCCAATACTCTAGCCCCGCTCTCTTCCCCCTCTTTCTGTCCCCCATTTTCCAGGG AAGCCCTTGCCTTCCTCCCCACTTCTTTCTCCAGGCCTGGTTAACTCTTCCGTTGTCAGCTTCTCCCCCCTTC GATAGGCCAAGGGCTACTCTCGGCATCTCCAGGTGTTTTGTAGCAAACAGCCACTTAGTGCTTTGTCCTGGACT CCACTCAGCCTCAGGATGGGGAATAGCCAAGAATGGCAGCCTCAGCGCAGAGGCAAGGTCAGAAAGAGACGGCGC TTCAGAGTTTCCTTTCCAGACACCCCTCCCCGCACTGTGAAGTTCCCCTGACCGCCCTCCTGGTTCACAAAGAGC GGGAGTCCCAGTGGTGAGGCTCAGAGAACTGCTAAGGGGAAAGAACAGCTGGAGTTTCTGTTGATGTGAAGAAGA CAGCTCTTGGCCTCCCACTCCCACACTTCTTTGCCTATAAATCTTCCTAGCAGCAATTTGAGCTACCTGAGGAGG AGCTTATTCTATTCCCCACCCCACCCCCAGGCAGGCTTGGAAATGAAGGACTTTTTTAACCTTTGTTTTT TTAAAAATAAATCTGTAAAATCTG

MPLGPVTPALPLQCPTANLHKPGGSQQCHPPTPDTGPQNGHPEGVPHTPQRRFQHTSAVILQLQPASPVPQQCVPDWKEVAPGEKSVPETRSGPSPHQQAIVTAMPGGLPVPTSPNIQPSPAHETGQGIVHALTDLSSPGMTSGNGNSASSIAGTAPQNGENKPPQAIVKPQILTHVIEGFVIQEGAEPFPVGRSSLLVGNLKKKYAQGFLPEKLPQQDHTTTTDSEMEEPYLQESKEEGAPLKLKCELCGRVDFAYKFKRSKRFCSMACAKRYNVGCTKRVGLFHSDRSKLQKAGAATHNRRRASKASLPPLTKDTKKQPTGTVPLSVTAALQLTHSQEDSSRCSDNSSYEEPLSPISASSSTSRRRQGQRDLELPDMHMRDLVGMGHHFLPSEPTKWNVEDVYEFIRSLPGCQEIAEEFRAQEIDGQALLLLKEDHLMSAMNIKLGPALKIYARISMLKDS

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174/6881 FIGURE 164

 ${\tt MAFPVGLESSSPMTVIFSKKYEERGRAWWLTSVILANHSGLQPTPSSLTGQLETSVPPCLPPLTQGPIGMIRGSQLSVIKHSNCNWLLELSIVE}$

GGCGAGCAGTCTGCGCGCGCATCGCCGCAGCGGCGATGGCGGCAGCGGCAGGTGGAGGGGCTGGCGCCCGCT CCCTCTCGCGCTTCCGAGGCTGCCTGGCTGCTCGCGGGGACTGCGTGGGCTCCTTCTACGAGGCCCACG ACACCGTCGACCTGACGTCAGTCCTGCGTCATGTCCAGAGTCTGGAGCCCGGACCCCGGCACGCCCGGGAGTGAGC GGACAGAAGCCTTGTACTACACAGATGACACAGCCATGGCCAGGGCCCTGGTGCAGTCCCTGCTAGCCAAGGAGG GAGTAGTCACTGTCTTCAAGAAGCTCCTGAACCCCAAATGTCGCGATGTCTTTGAGCCTGCCCGGGCCCAGTTTA ACGGGAAAGGCTCCTATGGCAATGGAGGTGCCATGCGGGTGGCTGCCATCTCCCTGGCCTATAGCAGTGTCCAGG ATGTGCAGAAGTTTGCCCGGCTCTCGGCCCAGCTGACACACGCCTCCTCCCTGGGTTACAATGGCGCCATCCTGC AGGCCCTGGCTGTGCACCTGGCCTTGCAGGGCGAGTCTTCCAGCGAGCACTTTCTCAAGCAACTCCTGGGCCACA TGGAGGATCTGGAGGGTGATGCCCAGTCCGTCTTGGATGCCAGGGAGTTGGGCATGGAGGAGCGTCCATACTCCA GCCGCCTGAAGAAGATTGGAGAGCTTCTAGACCAGGCATCGGTGACCAGGGAAGAGTGGTGTCTGAGCTAGGGA ATGGCATTGCTGCCTTTGAGTCGGTACCCACCGCCATCTACTGCTTCCTACGCTGCATGGAGCCAGACCCTGAGA TCCCTTCTGCCTTCAATAGCCTCCAAAGGACTCTCATTTATTCCATCTCACTTGGTGGGGACACAGACACCATTG AAGGCTACGAGGAGACAGACATCCTGGCCCAAAGCCTGCACCGTGTCTTCCAGAAGAGT<u>TGA</u>TGAGGGCTACAGC TGTTGGGGCTCTGCCAGGTCCCCTGGGACCAACTACAGCTCCAATCAGAAACCCTGCGCTTCCTTGAGTGTGGCT TCCCACTTTTCCTGCATTGTGGAGCTGACTGAGTACACCGGTGAGGCTGGGGTCTCTGCAGGGGAGGTCACTGGA ACAGCGAGCAAGGGACTGGTGCCTGGTGCTGGGTCTCTGGTTTGCTGCAGAGCCGTAGGACACTCCTGGCT CCTCAGTAGGACAGACGCGGGGTTTATTTTGGAGGGGTACTTGTGGCATTTTCCTGTATTGTCTTGGA ${\tt CATGGGATGTGGGGAGGTGGAAATGATGAGCAGTAGCATCATTTCTCCCTGTTGGGTTTTAGCCAGTTTGCCAGC}$ AAGCGCATCCTAGCAGGGTCCCCGAGCAGCAGGTTGTGTGGATGAAGGGACAGGCACTTGCATCCAGCTGATCTA GGTCACACCTGGCTCTTGGCTGCCATGTGGCTTATTAACAGCTTCCAGTGGAAGTCGCAATAAACAGTTTTTGGT АААТСТСАААААААААААААААААААААААААААААА

MAAAAMAAAAGGGAGAARSLSRFRGCLAGALLGDCVGSFYEAHDTVDLTSVLRHVQSLEPDPGTPGSERTEALYY
TDDTAMARALVQSLLAKEAFDEVDMAHRFAQEYKKDPDRGYGAGVVTVFKKLLNPKCRDVFEPARAQFNGKGSYG
NGGAMRVAGISLAYSSVQDVQKFARLSAQLTHASSLGYNGAILQALAVHLALQGESSSEHFLKQLLGHMEDLEGD
AQSVLDARELGMEERPYSSRLKKIGELLDQASVTREEVVSELGNGIAAFESVPTAIYCFLRCMEPDPEIPSAFNS
LQRTLIYSISLGGDTDTIATMAGAIAGAYYGMDQVPESWQQSCEGYEETDILAQSLHRVFQKS

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 $\tt CCGTGGCTAGGCGAGTGGGGGGGGGGGGGCGCACC\underline{ATG}{TCGAGGCAGCGAACCGTGGCACCGAGAGCAAGAAA}$ ATGAGCTCTGAGCTCTTCACCCTGACCTATGGTGCCCTGGTCACCCAGCTATGTAAGGACTATGAAAATGATGAA GATGTGAATAAACAGCTGGACAAAATGGGCTTTAACATTGGAGTCCGGCTGATTGAAGATTTCTTGGCTCGGTCA ${\tt AAIGTTGGGAGGTGCCATGACTTCGGGAAACTGCGGATGTCATTGCCAAGGTGGCGTTCAAGATGTACTTGGGC}$ ATCACTCCAAGCATTACTAATTGGAGCCCAGCTGGTGATGAATTCTCCCCTCATTTTGGAAAATAACCCCTTGGTG GACTITGTGGAACTTCCTGATAACCACTCATCCCTTATTTATTCCAATCTCTTGTGTGGGGTGTTGCGGGGAGCT TTGGAGATGGTCCAGATGGCTGTGGAGGCCAAGTTTGTCCAGGACACCCTGAAAGGAGACGGTGTGACAGAAATC AGCCATCAGGAGCACTGTTGGAATCAGCAGGCCTCTGTGCTCCTCTGCCCTCCAGAACTCAGTGACTCTTGAAC ATGGATGTTATATATTCTTATAACCTGTTTCCATTCTCCATTCAAATAAAGAGCAGACTGCGATATAGTCCATTT ${\tt ACCCCATGTGTGCACATTCAGGAGCGACAGTCTCTGCCCCCATTCCCTTGAGAGGGGCTGGATGTAATCACCTTT}\ ,$ GGTTGGACTAGAAAGAGCTCAAACCATTTTACATTCCTGTTTGAATTTTCCAAAGCAAAACTCACTTTGACCCCA TTAAGAGGCAAGCCTGGCACATCTATCCCTGGGCCTTTAGAAAGCCATTTGCCTCAAATGGCTATAGGGTTGTGG GGTGGAGGAGGAGGGAGGGAGGGAGGGAGTTGCTAGCTGTAGTGTGACACATTGTAGTGTTTGCCA GGAAAGGAGCCAGTCATGCCGGAAACACTGACTTCTGGGAAGCCACCCAGGTCTCATTCCTCCCTGCTGTTGGAG ${\tt GCAACATCTCCTCTTTTTACAGAGGGTACATCCTTTTTTCTTACAAATTCTTCAATAAAGACACATTCTTGAGTG}$ AAATCCCTAAAAAAAAA

 ${\tt MSRQANRGTESKKMSSELFTLTYGALVTQLCKDYENDEDVNKQLDKMGFNIGVRLIEDFLARSNVGRCHDFRETA}\\ {\tt DVIAKVAFKMYLGITPSITNWSPAGDEFSLILENNPLVDFVELPDNHSSLIYSNLLCGVLRGALEMVQMAVEAKF}\\ {\tt VQDTLKGDGVTEIRMRFIRRIEDNLPAGEE}$

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ACTTACTATTGGAGGCAGTGGGCAGCGCAGGACAGGCCCAGGGCCGACCCTGGCAATGACTGTCACCAGCTG AGGAAGTGGGATTTCTGGAAATAATGCAAAGAGAGCTGGACCATTCATCCTTGGTCCCCGTCTGGGCAACTCACC GGTGCCAAGCATAGTGCAGTGTTTGGCGAGGAAAGATGGCACGGATGACTTCTATCAGCTGAAGATCCTGACCCT GGAGGAGAGGGGGACCAAGGCATAGAGAGCCAGGAAGAGCGGCAAGATGCTGCTGCACACCGAGTACTC ACTGCTGTCTCCTGCACACGCAGGATGGCGTGGTGCACCACCACGGCCTCTTCCAGGACCGCACCTGTGAAAT CGTTGAGGACACAGAATCCAGCCGGATGGTTAAGAAGATGAAGAAGCGCATCTGCCTCGTCCTGGACTGCCTCTG TGCTCATGACTTCAGCGATAAGACCGCTGACCTCATCAACCTGCAGCACTACGTCATCAAGGAGAAGAGGCTCAG CGAGAGGGAGACTGTGGTAATCTTCTACGACGTGGTCCGCGTGGTGGAGGCCCTGCACCAGAAAAATATCGTGCA CAGAGACCTGAAGCTGGGGAACATGGTGCTCAACAAGAGGACACATCGGATAACCATCACCAACTTCTGCCTCGG GAAGCATCTGGTGAGCGAGGGGGACCTGCTGAAGGACCAGAGAGGGGCCCTGCCTACATCAGTCCCGACGTGCT CAGCGGCCGGCCGTACCGTGGCAAGCCCAGTGACATGTGGGCCCTGGGCGTGGTGCTCTTCACCATGCTGTATGG CCAGTTCCCCTTCTACGACAGCATCCCGCAGGAGCTCTTCCGCAAGATCAAGGCTGCCGAGTATACCATTCCTGA GGATGGACGGGTTTCTGAGAACACCGTGTGTCTCATCCGGAAGCTGCTGGTCCTTGACCCCCAGCAGCGCCTGGC CGCCGCCGACGTCCTGGAGGCCCTCAGTGCCATCATTGCATCATGGCAGTCCCTGTCATCTCTGAGTGGGCCTTT GCAAGTGGTTCCTGACATTGATGACCAAATGAGCAATGCGGATAGCTCCCAGGAGGTGAGTTGGGGAGGGCAGAT GCCACAGAGTTTCCTTGGTCTTCTCCCCAGCCTTGGGGTGGGAAAGGGAGACTTCAGTCCTCAGCCTGAGCTGC CTGGGGCCTGCCTTGGGCTTGGTGTAGCTGGAGATCTTTGGCCAGAGACACCTGTGAGACAGCCGAGCTGGAGCC AGTGCCCAAGTGGCCCAGGCCAGCCCTCTCAGCTTCCTCCTGCCCAAGTCACATTTCTCTGCCCCCTGACTC AGAGTTCTCTCACCCTTCCTGCTTTTCATTTTTCAGATGATTCATTTCTCCCCTATTTCTTCCTCCCCATTCC CTGCACTGGAGAAAGTGTTGGGCCTAGGGTGGGGGCAGAGACTTGGGCACCAGGCAGCAGAGGCAGGTGATCTT AGGGTGCCCCTGGAGGGCAGGGCTTGGCCGAGCAACAGCATTGCTGGGCCCTGGATATTGGAAGGACCTTCCCT CCCTGGCCCACCTTGGAGCTCCACAGTGAGCAGTGTGCAGGTAGGACCAGGAGGGGCCGTGCCTGGGAGAGCCTC CCAGAGCCTCCTGGCCCCCGAGGAAAGAGTTCCAATCCCTACCCACCTCCAGCTTCCACCCTTTAGCTGTTTG GCTAAAATCATCATCACTAGCCCGCAGTGAGTGCCTACCCCGAGGGCCACCTCATTCAGCCCTCACTGCGGGCCTG CGTGGCCTGTGTTCTTAGCCCCATGTTACAGAAGAGGAAACAGGGTTAGAGAGGACTTTCCCAAAGCCACACAGC TTAGAAGTAGTGGAGCTAAGCCTTGAACCCAAGTCTCATCCGGAAGCCCTGCTGTCTCCTGTGGTGACTGGCACG GGGACACCACTTCAGCTTCTGTTACCATCTGCCTAGACCATCCCAGGGAGCTCAGCATGGGGCCCTGCGTATGTG GCTCCTCCAGGTGCTGCGCCCCAGCCCAGGCTTGCTCGTACCTCTTGACGTGCATTAGCCGCCTCAGGGCTCA GAGAACCTTTGCGAGGGCCAGACAGCTAAGGCTTCTGAGGTAAAGTGACCTCTCACGCAGCCAGTGAGTTAGGA AGCATGAGTCTGCGTCAGGTCCGGGGCGGCGGCCTGCAAGGGGAGTTGAGGTTGGCTGGAGGGGGTCAGG GACCCACCCTCAGCGCCACCCCCCGGCCTTGAGGCCTGAGGGTGTGCCTGGAAGGGTGACTGCAGGA GCCAGGCTGCCAGCACTCTTGCCTGCCTCCTGTCTGCGCTGCCTTCATCTGGGTTTATCTTTGTCTCCTTC CCACCCTCCCGCCTCAAAGGCGAAGGTGACGGAGGAGTGCTCCCAGTACGAGTTTGAGAACTACATGCGTCAGC AGCTGCTGGCCGAGGAGAAGAGCTCCATCCATGACGCCCGGAGCTGGGTACCCAAGCGGCAGTTCGGCAGCG CACCACCGGTGCGACGGCTGGGCCACGACGCCCATGACCTCCTTGGACACGGCCATCCTGGCGCAGCGCT CTGTCAGGGCTGGGCCCTGTAGTGCTGGACTCTCCCGGGCCACAATAGGGACAGGGCAGGGACAGGGACAGCCCA GGTCACACGTGGGGTCAGCAGAGGTACCACGAAGCTACCTTTTGGGATGATTGCTCGATTGTTTGAGTTTTTAAAT CTGAGAAGCCTAGATAACTAATCTGCTTTTAATCACGATGTTTTAATCTACCTCTGTCTCTTTAACCATGCTGTC TCTGGACTGAGCAAGAGGGAGGGGGGGCCTGCTCACCCCACTCCAGGGCCTTCCCCAGCGGCCACCAACTGACC TCCCTGCTCTCCCAGGCCCCTGCCACAGCCTCTTTCCGTCCCTCTTTCTGATCCAGGCCCCTCAGTCCAAGCT AGCTCCTCCTCACCCCAGGCAGGGAAGCCCCTCCTGCCAGTCCCTTTCAGCCCACCAGTCCCTCTC TGCTGCCGGTGATGGGAGGCCTTTCTAGACCTGGCTCTTTCTCTCCCGTCTCAGTGGCTTCTCTGAGGTGCTGTA

180/6881 FIGURE 169B

CACGCGCGTTAACCTGTTCCCTTCTCTATCCTTCCCCGTGGTACTGAGCTCACGTGGACTCCCAGTGCGAAGGGG GGGATGGTGGGAACATATCCCAGTGCCCTTGCCTCATAATAGATGTGGTGACTCTCCCGGTAGACCCTAGCAAGG CTGCTGCCCTTTTGAGCCGAGATTTTGAAGTGGATGCCCGTCTTGCCAGAAATGCTGTTCTCACCAGAATGCCCC CTCCCCTTGCCCTTACTGGACTTGGCCCTGCCTGATGCCAAGCAAAGACCCTTCCCCAGAGGCCTACCCCCATA CTTGGGCAAGTTCCCAAACCTCCTTGTGCCTCAGTTTCCCCATCTGGAAAAAATGGGGCCACCTCTTGCCAGCAG TAGCAGGGCTGCCCACGCCCCTTTCTCCCCATGCCCCATCCAGCACTTGGGCGACTCATGCCTCTGCCTCAGTGG GCGGGAGCGGAAATGCAGTCCGGCCTAGGGCTCCCAGCCCTTGACTGTCCTCCTGTGAGGGCCTGAAGCTGGGCC ATGTGTCTGATGACATTCCTGGTGAAGCAAAGGAGGAGGAGGATGGGTCAGCCCTCACTGGGTGTCACACACTGAG AGAAGTCCTATTGTAAAGAAACGGAAAAAGTCACAAAAAAGTTTGTATAAAGACATATTTTTGTACTACATGGGG ACTCTTCCTGCATGTCAGCAATAAAACTTCCTGATCTGG

MKRRASDRGAGETSARAKALGSGISGNNAKRAGPFILGPRLGNSPVPSIVQCLARKDGTDDFYQLKILTLEERGD QGIESQEERQGKMLLHTEYSLLSLLHTQDGVVHHHGLFQDRTCEIVEDTESSRMVKKMKKRICLVLDCLCAHDFS DKTADLINLQHYVIKEKRLSERETVVIFYDVVRVVEALHQKNIVHRDLKLGNMVLNKRTHRITITNFCLGKHLVS EGDLLKDQRGSPAYISPDVLSGRPYRGKPSDMWALGVVLFTMLYGQFPFYDSIPQELFRKIKAAEYTIPEDGRVS ENTVCLIRKLLVLDPQQRLAAADVLEALSAIIASWQSLSSLSGPLQVVPDIDDQMSNADSSQEVSWGGQMGHYPA PRDRLLGAGRARAEVAATRRPQSFLGLLPQPWGGKGRLQSSA

ATTGGGACGCTGCGCCTTCAGGCCACTGGCTACCGAACCCCGGGGCTCTTCACCAGTCCAGCTCGTTTC ACGGCTGCGGGCCCAGAACATCCCGGGAGACAAGGCCCGCAAAGTTCTGAATGACATCATCTCCACCATGTTCAA TAGAAAGTTTATGGAGGAATTATTCAAGCCTCAAGAGCTCTACTCCAAGAAGGCCCTGAGGACTGTCTATGAGCG CCTGGCTCATGCCTCCATTATGAAACTGAACCAGGCCAGCATGGATAAGCTCTATGACCTGATGACCATGGCTTT CAAATATCAAGTATTGCTGTGTCCCCGACCCAAGGATGTGCTGCTGGTCACTTTCAATCACTTGGATACCATCAA GGGATTCATCCGAGACTCCCCAACCATCCTGCAGCAAGTGGACGAGACTTTGCGGCAGCTGACAGAAATATATGG TGGTCTCTCTGCAGGGGAGTTCCAGCTGATCCGGCAGACACTCCTCATCTTCTTCCAAGACCTGCACATCCGAGT ATCCATGTTTCTAAAGGACAAAGTTCAGAATAATAACGGTCGCTTTGTGTTGCCGGTGTCCGGGCCTGTTCCTTG GGGAACTGAAGTTCCAGGACTCATCAGAATGTTCAACAACAAGGTGAAGAAGTGAAGAGGATAGAATTCAAGCA TGGTGGAAACTATGTCCCTGCACCCAAAGAAGGTTCTTTTGAACTTTATGGAGACCGAGTCCTGAAACTGGGAAC TAACATGTACAGCGTGAATCAGCCTGTGGAAACTCATGTGTCTGGATCATCAAAGAACTTAGCCTCATGGACCCA TAAGAAACCCAGTGGCCCTGAGCCCAGATTCCGGTTGAATCTCTTTACCACCGATGAAGAAGAGGAACAAGCAGC GCTAACCAGGCCAGAAGAGTTATCCTATGAAGTTATCAACATACAAGCCACCCAGTCTCTTTTCAGCAATCTGGC $\texttt{CACCATTCAGGGGGGCCTGACTGGG} \underline{\textbf{TGA}} \\ \texttt{CAGGATGAATGGGAAGGTTCTGACCTGTTTTGAGTCCGGCTCCCACCT}$ TGCTGTCACATATCAGAATGTCACTGCTCTGAGTGTGTCCCAGGGCCTTGGAGGTGGGCCGTGAGGTGCCGAGAA GCAGCCGCAGCCTCCCCCCCCCCCACCTATCCCAGAGCGATGCTGGTGATTTCAAACGTATCTGTCCTATCAGTAAA TAAACAAGATGCAGATCTCTGGT

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MSVRTLPLLFLNLGGEMLYILDQRLRAQNIPGDKARKVLNDIISTMFNRKFMEELFKPQELYSKKALRTVYERLA HASIMKLNQASMDKLYDLMTMAFKYQVLLCPRPKDVLLVTFNHLDTIKGFIRDSPTILQQVDETLRQLTEIYGGL SAGEFQLIRQTLLIFFQDLHIRVSMFLKDKVQNNNGRFVLPVSGPVPWGTEVPGLIRMFNNKGEEVKRIEFKHGG NYVPAPKEGSFELYGDRVLKLGTNMYSVNQPVETHVSGSSKNLASWTQESIAPNPLAKEELNFLARLMGGMEIKK PSGPEPGFRLNLFTTDEEEEQAALTRPEELSYEVINIQATQSLFSNLATIQGGLTG

GAAGCTGGACTGCAGCTGGTTTCAGGAACTTCTCTTGACGAGAAGAGAGACCAAGGAGGCCAAGCAGGGGCTGGG ${\tt TGAACATCAAGTTGGTGCT} \underline{{\tt ATG}} {\tt GCAAGGCTGGGAAACTGCAGCCTGACTTGGGCTGCCCTGATCATCCTGCTGCT}$ CCCCGGAAGTCTGGAGGAGTGCGGGCACATCAGTGTCTCAGCCCCCATCGTCCACCTGGGGGATCCCATCACAGC CTCCTGCATCATCAAGCAGAACTGCAGCCATCTGGACCCGGAGCCACAGATTCTGTGGAGACTGGGAGCAGAGCT TCAGCCCGGGGGCAGCAGCGTCTGTCTGATGGGACCCAGGAATCTATCATCACCCTGCCCCACCTCAACCA CACTCAGGCCTTTCTCTCCTGCTGCCTGAACTGGGGCAACAGCCTGCAGATCCTGGACCAGGTTGAGCTGCGCGC GGAGCCAGGACCTGAGACCCACCTACCCACCAGCTTCACTCTGAAGAGTTTCAAGAGCCGGGGCAACTGTCAGAC CCAAGGGGACTCCATCCTGGACTGCGTGCCCAAGGACGGGCAGAGCCACTGCTGCATCCCACGCAAACACCTGCT GTTGTACCAGAATATGGGCATCTGGGTGCAGGCAGAGAATGCGCTGGGGACCAGCATGTCCCCACAACTGTGTCT TGATCCCATGGATGTTGTGAAACTGGAGCCCCCATGCTGCGGACCATGGACCCCAGCCCTGAAGCGGCCCCTCC CCAGGCAGGCTGCCTACAGCTGTGCTGGGAGCCATGGCAGCCTGCACATAAATCAGAAGTGTGAGCTGCG CCACAAGCCGCAGCGTGGAGAAGCCAGCTGGGCACTGGTGGGCCCCCTCCCCTTGGAGGCCCTTCAGTATGAGCT CGACTGGAGCCCAGCCTGGAGCTGAGAACTACCGAACGGGCCCCCACTGTCAGACTGGACACATGGTGGCGGCA CTGCACCTTCCACCTGCCTTCAGAAGCCCAGGAGGTGGCCCTTGTGGCCTATAACTCAGCCGGGACCTCTCGCCC CACCCCGGTGGTCTTCTCAGAAAGCAGAGGCCCAGCTCTGACCAGACTCCATGCCATGGCCCGAGACCCTCACAG CCTCTGGGTAGGCTGGGAGCCCCCAATCCATGGCCTCAGGGCTATGTGATTGAGTGGGGCCTGGGCCCCCCAG CGCGAGCAATAGCAACAAGACCTGGAGGATGGAACAGAATGGGAGAGCCACGGGGTTTCTGCTGAAGGAGAACAT CAGGCCCTTTCAGCTCTATGAGATCATCGTGACTCCCTTGTACCAGGACACCATGGGACCCTCCCAGCATGTCTA TGCCTACTCTCAAGAAATGGCTCCCTCCCATGCCCCAGAGCTGCATCTAAAGCACATTGGCAAGACCTGGGCACA GCTGGAGTGGGTGCCTGAGCCCCTGAGCTGGGGAAGAGCCCCCTTACCCACTACACCATCTTCTGGACCAACGC TCAGAACCAGTCCTTCTCCGCCATCCTGAATGCCTCCTCCCGTGGCTTTGTCCTCCATGGCCTGGAGCCCGCCAG TCTGTATCACATCCACCTCATGGCTGCCAGCCAGGCTGGGGCCACCAACAGTACAGTCCTCACCCTGATGACCTT GACCCCAGAGGGGTCGGAGCTACACATCATCCTGGGCCTGTTCGGCCTCCTGCTGTTGCTCACCTGCCTCTGTGG AACTGCCTGGCTCTGTTGCAGCCCCAACAGGAAGAATCCCCTCTGGCCAAGTGTCCCAGACCCAGCTCACAGCAG CCTGGGCTCCTGGGTGCCCACAATCATGGAGGAGGATGCCTTCCAGCTGCCCGGCCTTGGCACGCCACCCATCAC CAAGCTCACAGTGCTGGAGGAGGATGAAAAGAAGCCGGTGCCCTGGGAGTCCCATAACAGCTCAGAGACCTGTGG CCTCCCCACTCTGGTCCAGACCTATGTGCTCCAGGGGGACCCAAGAGCAGTTTCCACCCAGCCCCAATCCCAGTC TGGCACCAGCGATCAGGTCCTTTATGGGCAGCTGCTGGGCAGCCCCACAAGCCCAGGGCCAGGGCACTATCTCCG CTGTGACTCCACTCAGCCCCTCTTGGCGGGCCTCACCCCCAGCCCCAAGTCCTATGAGAACCTCTGGTTCCAGGC ${\tt CAGCCCTTGGGGACCCTGGTAACCCCAGCCCCAAGCCAGGAGGACGACTGTGTCTTTGGGCCACTGCTCAACTT}$ CCAGCCCAGGCTCTCACCATCTCCAGTCACCAGCATCTCCCTCTCCCCAATCTCCATAGGCTGGGCCTCCCAG **AACTTCAGTATTGTAAAC**

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MARLGNCSLTWAALIILLLPGSLEECGHISVSAPIVHLGDPITASCIIKQNCSHLDPEPQILWRLGAELQPGGRQ
QRLSDGTQESIITLPHLNHTQAFLSCCLNWGNSLQILDQVELRAGYPPAIPHNLSCLMNLTTSSLICQWEPGPET
HLPTSFTLKSFKSRGNCQTQGDSILDCVPKDGQSHCCIPRKHLLLYQNMGIWVQAENALGTSMSPQLCLDPMDVV
KLEPPMLRTMDPSPEAAPPQAGCLQLCWEPWQPGLHINQKCELRHKPQRGEASWALVGPLPLEALQYELCGLLPA
TAYTLQIRCIRWPLPGHWSDWSPSLELRTTERAPTVRLDTWWRQRQLDPRTVQLFWKPVPLEEDSGRIQGYVVSW
RPSGQAGAILPLCNTTELSCTFHLPSEAQEVALVAYNSAGTSRPTPVVFSESRGPALTRLHAMARDPHSLWVGWE
PPNPWPQGYVIEWGLGPPSASNSNKTWRMEQNGRATGFLLKENIRPFQLYEIIVTPLYQDTMGPSQHVYAYSQEM
APSHAPELHLKHIGKTWAQLEWVPEPPELGKSPLTHYTIFWTNAQNQSFSAILNASSRGFVLHGLEPASLYHIHL
MAASQAGATNSTVLTLMTLTPEGSELHIILGLFGLLLLLTCLCGTAWLCCSPNRKNPLWPSVPDPAHSSLGSWVP
TIMEEDAFQLPGLGTPPITKLTVLEEDEKKPVPWESHNSSETCGLPTLVQTYVLQGDPRAVSTQPQSQSGTSDQV
LYGQLLGSPTSPGPGHYLRCDSTQPLLAGLTPSPKSYENLWFQASPLGTLVTPAPSQEDDCVFGPLLNFPLLQGI

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GGGTCGCGGGGGAGTTGCTGGGCGGTTCTTGCCGGAAGCGGAGGCGGCTGATCGCAGTCCGGAGGTGAGGCGGA ACTCTGAGGCAGATATCCTCCCTTTCCTCCTCGGCTGCTCTTACTTTGACAAGCCAGGCTAACATTGAAGGT GGTCCATTATGGCTGACATGCAAAATCTGGTAGAAAGATTGGAGAGGGCAGTGGGCCGCCTGGAGGCAGTATCTC ATACCTCTGACATGCACCGTGGGTATGCAGACAGTCCTTCAAAAGCAGGAGCAGCTCCATATGTGCAGGCATTTG ACTCGCTGCTTGCTGGTCCTGTGGCAGAGTACTTGAAGATCAGTAAAGAGATTGGGGGGAGACGTGCAGAAACATG AAAATAAGCTTTCCGATTTGTTGGCACCCATCTCAGAGCAGATCAAAGAAGTGATAACCTTTCGGGAGAAGAACC GAGGCAGCAAGTTGTTTAATCACCTGTCAGCTGTCAGCGAAAGTATCCAGGCCCTGGGCTGGGTGGCTATGGCTC CCAAGCCTGGCCCTTATGTGAAAGAATGAATGATGCCGCCATGTTTTATACAAACCGAGTCCTCAAAGAGTACA AAGATGTGGATAAGAAGCATGTAGACTGGGTCAAAGCTTATTTAAGTATATGGACAGAGCTGCAGGCTTACATTA AGGAGTTCCATACCACCGGACTGGCCTGGAGCAAAACGGGGCCTGTGGCAAAAGAACTGAGCGGACTGCCATCTG GACCCTCTGCCGGATCATGTCCTCCTCCCCCTCCACCATGCCCCCCTCCTCCCCCAGTCTCTACCATTTCATGCT CATATGAGTCTGCTTCCCGCTCATCACTGTTCGCGCAGATTAATCAGGGGGAGAGCATTACACATGCCCTGAAAC ATGTATCTGATGACATGAAGACCTCACAAGAACCCTGCCCTGAAGGCTCAGAGTGGTCCAGTACGCAGTGGCCCCA AACCATTCTCTGCACCTAAACCCCAAACCAGCCCATCCCCCAAACGAGCCACAAAGAAGGAGCCAGCTGTACTTG AACTGGAGGCAAGAAGTGGAGAGTGGAAAATCAGGAAAATGTTTCCAACCTGGTGATTGAGGACACAGAGCTGA AACAGGTGGCTTACATATACAAGTGTGTCAACACGACATTGCAAATCAAGGGCAAAATTAACTCCATTACAGTAG ATAACTGTAAGAAACTTGGCCTGGTATTCGATGACGTGGTGGCGCATTGTGGAGATAATCAACAGTAAGGATGTCA AAGTTCAGGTAATGGGTAAAGTGCCAACCATATCCATCAACAAAACAGATGGCTGCCATGCTTACCTGAGCAAGA ATTCCCTGGATTGTGAAATAGTCAGTGCCAAATCTTCCGAGATGAATGTCCTCATTCCTACAGAAGGCGGTGACT TTAATGAATTCCCAGTTCCTGAGCAGTTCAAGACCCTATGGAACGGGCAGAAGTTGGTCACCACAGTGACAGAAA TCTTTTCTAGATTTCCTCTACCTTTTTGCTCTTAAAACTGCTTCTCTGCTCTGAGAAGCACAGCTACCTGCCTTC ACTGAAATATACCTCAGGCTGAAATTTGGGGTGGGATAGCAGGTCAGTTGATCTTCTGCAGGAAGGTGCAGCTTT TCCATATCAGCTCAACCACGCCGCCAGTCCATTCTTAAGGAACTGCCGACTAGGACTGATGATGCATTTTAGCTT TGTTCACACTGGTTAATCTTTTTTTAACAATGAGCATGAAGGTAGCAGAAGCTGGTGTTTTCCAGATGGTTCTT CTAACCAAACTAATTTTCACTGTTGACAAGCGAGGCAAGGGTTGCACTGGACCAAAGGCTGAGGCTTGGCCATC TAGCATTCCATACAAAATTGTTTCCTATAAGCATTCCTTTTATTCTCTATTCTATCCTGGGTCTGCCTCAACCGT GAGATAGGAGAGTCTCTGGTACTAGCTGCTGTAGCAGTGCCCTTCATCCAGGGCAGTTAATGGAGTCTTGGACCC CCACATGATTTCAAGGAGTCTGGCATTCCTGAATCCTTCTTCCCTGCCAGGTGCCTGTCACCTGTCTTCACTGCC ${\tt TCCTTTTCCCTGTCATGCTCATCAGCTTATGGCTTCTGTCTAAGCACCTGAACAGGGACTGAAACCTCCACTGC}$ AGGCTGGTTTTAGGTCTTGAATTATGTAAGAATCTTGCACAGCACTGCTAATGTAAATTTCAGTTGTTTTTCCCT CTAGGACAAACACTTACCAAAATATGCAACTTTTTTTTGGTGGGAAGAGAGTTGTCCTGTGATTTCTACCCATT TCCTGAGGCCTGTGGAAATAAACCTTTATGTACTTAAAGTTATACAGAAAATAGAATAAAGTTAATACCAAACTT G

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CTCTCCTGCCATGGACCTGCGCTTCTCGGGCGCTGCAGCATCTGGACCCGCCGGCGCCGCTGCCGTTGGTGATCT GGCATGGGATGGGAGACAGCTGTTGCAATCCCTTAAGCATGGGTGCTATTAAAAAAATGGTGGAGAAGAAAATAC CTGGAATTTACGTCTTATCTTTAGAGATTGGGAAGACCCTGATGGAGGACGTGGAGAACAGCTTCTTCTTGAATG TCAATTCCCAAGTAACAACAGTGTGTCAGGCACTTGCTAAGGATCCTAAATTGCAGCAAGGCTACAATGCTATGG GATTCTCCCAGGGAGGCCAATTTCTGAGGGCAGTGGCTCAGAGATGCCCTTCACCTCCCATGATCAATCTGATCT CGGTTGGGGGACAACATCAAGGTGTTTTTGGACTCCCTCGATGCCCAGGAGAGAGCTCTCACATCTGTGACTTCA TCCGAAAAACACTGAATGCTGGGGCGTACTCCAAAGTTGTTCAGGAACGCCTCGTGCAAGCCGAATACTGGCATG ACCCCATAAAGGAGGATGTGTATCGCAACCACAGCATCTTCTTGGCAGATATAAATCAGGAGCGGGGTATCAATG AGTCCTACAAGAAAAACCTGATGGCCCTGAAGAAGTTTGTGATGGTGAAATTCCTCAATGATTCCATTGTGGACC CTGTAGATTCGGAGTGGTTTGGATTTTACAGAAGTGGCCAAGCCAAGGAAACCATTCCCTTACAGGAGACCTCCC TGTACACACAGGACCGCCTGGGGCTAAAGGAAATGGACAATGCAGGACAGCTAGTGTTTCTGGCTACAGAAGGGG AATAGAGCTCAGGGAGCCCCTAACTCTTCCAAACCACATGGGAGACAGTTTCCTTCATGCCCAAGCCTGAGCTCA GATCCAGCTTGCAACTAATCCTTCTATCATCTAACATGCCCTACTTGGAAAGATCTAAGATCTGAATCTTATCCT TTGCCATCTTCTGTTACCATATGGTGTTGAATGCAAGTTTAATTACCATGGAGATTGTTTTACAAACTTTTGATG TGGTCAAGTTCAGTTTTAGAAAAGGGAGTCTGTTCCAGATCAGTGCCAGAACTGTGCCCAGGCCCAAAGGAGACA ACTAACTAAAGTAGTGAGATAGATTCTAAGGGCAAACATTTTTCCAAGTCTTGCCATATTTCAAGCAAAGAGGTG CTATTTCTGCATCATTTCTTAAGGCTGCCTTCCTCTCTCAGTACGTTGCCCTCTGTGCTATCATCTTATCATCAA TTATTAGACAAATCCCACTGGCCTACAGTCTTGCTTCTGCAGCACCCACTTTGTCTCCTCAGGTAGTGAATT AGTTGCTGTCACAAAAGGAGGGAAGTAGCACCCAAATTAAGTTGCTTAAGAGAGGAAATGTACATCTTGTATAAC TTAGGGAGCGAAGAAAATGTAGGCGCGAAAGTGAAAAGTGAGGCAGCTAGTTCTTCCTATTCCATTCTCGACCAA CCTGCCCTTTCTTAATATGACTAGTGGTCTTGATGCTAGAGTCAACTTACTCTGTTGCTGGCTTTAGCAGAGAAT AGGAGGAACCATATGAAAAAGATCAGGCTTTCTGACTTCCATCCCCAAAACACATTTACCAGCATACTCCAAACT GTTTCTGATGTGTTCCATGAGAAAAGGATTGTTTGCTCAAAAAGCTTGGAAAATACTACACACTCCCTTTCTCCT TCTGGAGATCAACCCACATTAGAGTGTCTAAGGACTCCTGAGAATTCCTGTTACAGTAAACAAAACTAACGTAAT CTACCATTTCCTACACTATTTGAGCATGGAAATCATAGTCCCCACTCTGTGAAAACTTAACGCTTTTTGGAAGAC ATTTCTGTAGCATGTCAGTTTGGAGAAATGATGAGCTACGCCTTGATGAAAGAACCGTGTTGGTGCTGCTAAGTT TAGCCATTATGGTTTTTCCTTTCTCTCTTTAAGCCTTATTCTTCAACTAAAAGATGAGGATTAAGAGCAAGAAG TTGGGGGGGATGTGAAAATAATTTTATGAGGTTGTCTAAAAT

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MASPGCLWLLAVALLPWTCASRALQHLDPPAPLPLVIWHGMGDSCCNPLSMGAIKKMVEKKIPGIYVLSLEIGKT LMEDVENSFFLNVNSQVTTVCQALAKDPKLQQGYNAMGFSQGQFLRAVAQRCPSPPMINLISVGGQHQGVFGLP RCPGESSHICDFIRKTLNAGAYSKVVQERLVQAEYWHDPIKEDVYRNHSIFLADINQERGINESYKKNLMALKKF VMVKFLNDSIVDPVDSEWFGFYRSGQAKETIPLQETSLYTQDRLGLKEMDNAGQLVFLATEGDHLQLSEEWFYAH IIPFLG

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 ${\tt MINTKGKRRGTRYMFSRPFRKHGVVPLAMYMRIYKKGDIVDIKGMGTVQKGMSHKCYHGKTGRVYNVPQHAVGIV} \\ {\tt VNKQVKGKILAKRINVCIEHIKHSKSRDSFLKRVKENDPPPREAQCVRTNGKEPELLETIPYEFMA}$

191/6881 FIGURE 180A

CCCCGTGAGCCTCCCTCGCCGCCCCCCCCCCCCCCCTGCCTATCCACTCGGAGTCCGCGCCAGCCTGGGGCCG GGCCGCGCCTACTGCCGGGTTCGCGGGGCGGGTCCCGGGGCAGCACCTGCCCGGCCTTGCGGAGCCGCCTCGGC CTGTGGAGGCCCCTCCCTGTCTGGACCCCGGCCCCACCTCCGGACCCTTTTATCACATCGCCTCCTCTGGGAGC CTGCCCTGATTGCCTTCACCTCATTTCTTGAAAATTGGTGTTTTTGGCAGAAGTCAATTGAAGCCTTGTGCAAATG CCCTAGGGGTGTGCTGTTGGGAGGCCCCCTGTGATGCGGAACACCAGGCTCAGATTCATCAGTTCGAGCTGC GGTGCGGAGCTCCAGCATTGGCGGTGAAATCTGCGGATCCCAGCAAGCCGGGGGCGGGGCTGGGACCACCACCGC CAAGAAGCGGCGGAGCAGCCTGGGTGCCAAGATGGTGGCCATCGTGGGCCTGACTCAGTGGAGCAAGAGCACACT CCAGCTTCCGCAGCCTGAAGGGGCCACCAAGAAGCTGCGCAGCAACATCCGCCGGAGCACGGAGACAGGCATCGC GGTGGAGATGCGGAGCCGGGTCACACGCCAGGCAGCCGGGAGTCCACCGATGGGAGCACCAACAGCAACAGCTC CGACGGCACGTTCATCTTCCCCACTACCGGCTAGGGGCTGAAAGCCAGTTCAGCGATTTCCTGGATGGGCTGGG ACCAGCTCAGATTGTGGGGCGACAGACACTGGCAACACCCCATGGGAGATGTGCACATTGCCATCATGGACCG CACCTATATCAAGGTTTACCTGCTGGAGAATGGGGCCTGCTTGGCCAAGAAGAAGACAAAGATGACCAAGAAGAC CTGTGATCCCCTGTACCAGCAGGCTCTGCTCTTTGACGAGGGGACCCCAGGGCAAGGTGCTGCAGGTGATCGTCTG GGGAGACTATGGCCGCATGGACCACAAGTGCTTCATGGGCATGGCCCAGATCATGCTGGACGAGCTGGACCTCAG CGCCGCGGTCACCGGCTGGTACAAACTCTTCCCCACCTCCTCAGTGGCAGACTCCACACTCGGATCCCTCACAG GCGCCTGTCCCAGTCTTCCCTGGAGAGTGCCACCAGCCCCTCATGCTCT<u>TAA</u>GGATGTCAGGAAGAGGCCAGGAT GGTGGTGTGGGGAGGGGTGCCTGCTGGCCCCATGTCCTCCCCTGTACATAGTCTTCGTGTCTTTCTGGACCCCTT GTCCTGCTGCATGCCTGTTGGCTACTGGGCTCATCCCAGCTGGCAGTGGAGACTGTAGTGTGTGCGTGTGTGCGT GCGTGTGTGTGTGTGTACGTGACCACGTTCTATCTGTTCATTTGTCTGGGTATAGTCACTCCTGGTGATGATA TGGGCTGAAATGTCTCCACGTCTCTTTGTGTCTTGTTGAAAAGAAACCCAAAGGAGTGTTGTGTGGACATGACTC ACCCTGAGGAGTCTCCAGGGATGGAGGTGGGGCATGCGGCCACTGGTCGTGCTGGTCCTGGCCTGGGCCA GAGCCTGTGTTTTCTCCACCTGTGCCTCCTGGTGGTCTCTGCTTTGTTTTCTGTCTTTGTTTTGTTCCACT CTTGACTCTCCCGGCTCTGCCACTGTTTTCTGAGAAATGTAGCATCCGCTGCAGCTGGCCACACTGAGGGCCCTC TGGGAACCCCACCGGAGCCGCTCCGGCAGCTCTTCCTGCCACTGAATGCGTTCTGCAGCATGTAGCATGC CCACCTAGCTCCTGGCCAGGGCCCTGGGGAGGCAGAGGGTACCCAGGGGACTGAGGGCTTAGAAATGACTTTCT CTATGAGGCTGGAACCTCCTCCTTCTTCCAGTGAAGCACGAGGTCTTGGTTCCAGGGTTCCTGGCCAGGTGCCCC CTTAGCATTTGTTCTTCATCTCCTGTCTTTCAAGCCTCCCCACTCCACCGTGCCGAAGGAGCTCTGCCAGTGGG CCTGGGCAGGCAGCCACAGAGGGCATGTTATCTGCTAAAGCAAACAGTCCTCCTGAGGCCCTGAGGGTGGCCCTG ACCCCTCAGGGCTCATTCCTGGTGGGCATGACTCGGTAAGGAGGTTCTGTGGGTAGGGCTGTTTGCTGGAATAA GGAGGGCTGAGCTGTTCCCCGCCACTGTTGAGGATCCCATCTGACATTTGGGGATTCACTGCATGAAGT TGTTCATTTGGGGCTCCAGTTTTTGTGCATTTCCAGACCAGGGTCCCTGTCTGGGAGCTCAGACTTAGCTGGGCT CCAGCAGCCTGGCTCCGGACTCTCGTCTGCCACCATCACCAGCTCTGTCTAAGCAATACTTACCCCTCCGGGCTT TCTCACCCATGTCTGGTTGGAGCTTCTCACAGCCACTCAAACCCTGACTTGATTTGACAACTGGGCCCTGTTGGT GGAGACCAGTGCCTGAACTGGACCCTGTGAAATCTGTCCCGTGGGAATCCTGAAGTCTGACTCAGGAATGCCCAG ACCTGTCCCTGTCCCTCAGCTCTAGGGTGAAAGGCGAGAGGTTGCACAGGACATGGACAGACCAGCCCTTGG GTTTGTATCTGGTAGGGGAGAAAGCAGCAGGACAGTGGAGGTGTGTGGAAGGCACTCTTTCCACCTCTCTCCAGG CATTATCCCCAGGTGCTGAAATGGCTGTGGCCCCAGCACCTGAGGCAGGGGTACGCTACCTGGGGTAGCAGTAGA AAGGTCTTGGGGTCTGAATGACTTGGGGCCTCCATTCATAACCAAAGTTGTAGGGGCATGGAGGCAGTGGCGCCT TAACACCTCCCAAGAAAGATAGGGGAAGAAGCCAGAACCCCACCTGGCCTGCCCACAGGACAAGAAGTGGGTAAG GGCAGGAAGGAAATGAACGGAGTTAGCTCCCAGGCTCCTATCTCTGCCTGAGCCTCTATTCTTATATTATCAGAG AAAGGGACCATTGGGTGCATAGAGATGGGGAGGAGGCCACTGGGCTGAATTTTCTCTTTAGGCGGAAATGCTCTC CCCAGGCCCATTGCGTTCGTCAAGTTCTTGGAAATGGACAAAGGGCTCTGTCCTCCTCGACCCTAGTGGGGGATC AAGAAGGAAACTCCGTTGCAAAAGGGTATTTTAATCTCCTGTTTATGATATATTCACCTCTAGAGCAGTCACTGT

FIGURE 180B

CAGGGTGTTGCGAAAATACTCTACACCTTTGGGATGATAGGGTTGTTAGTGACCCACAGGACAGTATAGATGTTT GTGGATGTAGCACTGAGTGGTGATACCCAGACCAGCAGTCACCCCAGGAAGTGGGGGGCTACCCATACCCTCATTC CTCTGGTGGGGAGCTGCCTGCAGAGAGGCCTGCCACTGGGGGTTCCAGGCCGTGGTGACCCTTGCCTCTGGGGAA CCTGGCTGCCAAAACTGCTCAGCAGTTGGGCCACTCCACTATTCCACCTCTCTAAAAGAAGGTAATTTCCTCCCC AAATTGACCTTGGGGAATTATTCTTTTAACCCTTTGCACCAAATAAGTTACTCATCCCCACCTGGATTTTACCCC ATGAGGGTAAAGTTGTGAGGCTGACACGTCTGTGTGATGCAGTGTGGCTGCACTTAAGGGTCTGTTTCTCAGC ATCATGGATGCAGGGGCTTGTCTGAAAAGCCACTCTGGACCTAGCCTGTCCCAGAAGAGGAGAATGCACAAGTGT CCCTCCAGAAGTCTCCCACCCTGGGGCCAACTCACTGCCATGTTCAGTGTCCCGGCTCCAAATGCCCCCTTGCCC AGATGAAACCCTGCAGTGGTTACAGGAATGGAGCTCTTTGTCATTCCACCTCCTCTGGTCAGGCGAGGTTCACTG CGTCTGTCTTTGTATTCTGCTCTGTTCATTCTGTCCCACTTTCTTCATAGACTCCTTTTCCCTGCAATGGGTTT TTGGTATGAAAAAGGCTCCAGTAAATGGAGCCAAGTCTTGGTTTGACAAGGGGAACTTGATCCTTCAGGGAAGAA TCATCTCCAAAATGACTCCCCATCTGGTTTCTTCTACCACCCAATTCTACTAGGAAAGGAGCACTTAGGAGGCTC TTGGGATGCAGCAAGTCCCAGGCAATGCCAGCATTTCATGGGGGCTGAGGCAGAACCCAGGAGCTCCAAGAAAGG CCACCCATAGAGCTCATCCTCTGTGGAATCACTGCCGGTTAGAACACTGAGGTCAAGCCAGTCCTCCCATGGTCA TGCCACCAGGGAAGCATGCCTGATCTCTTTTACTGCCAGCCTTGAGGAGAGCAGAAGCCTCCATTTTTA AAGACAATAAAGACCTCCAAGGGTACTTCTTTGGAAATGAAATGTAGCACAATCTTAGCCTACGTTACCAGGAGC CCTGACATGCAACCAGGGTCCCTCTTCCATGCCCTGCTGCCCAGGAGTTGCTGAGCTCCTCTTCCCCTGGGGTTC ${\tt CAGCCCTCCTAATACCTCATATTCCCCATCTTCCTCAGCCCAGAAAGCAATGGGGGCTTTAGTGATGCTCCTCTTT}$ TGTGTCTCTCTGGTTGCCTCTAGCACTGTGCAAACTCTGCAAGAAATTGCTGCCTTTGCTTGATGTTGTAGATGA GTTGCCCTCCACCTGGCTGGAGAGATGGCACATCATTCAGGGCCAGAAGGTTGTCCAGCAGTGTTTCTGCAGTGG CTGCAGGGAGATGGAAAAGAAGAGCCCTGCTTCCCTGCCTCCTACCTTTCTCTCCACTCCTCAGAGTTTTC TTCTCCAGTATCCTGACATGTAAAGAGATTCTTTAAAATGCTGCTTCTTCTACTGGACTGTCTTTCACTGAGTAG GGGGCAAAACAAACAAGCATGATTGAAGAGCAGGGGAAGCCCACACAATCAGGTGAGCCCTGATGGGGGCTGGA CTGGCCTGGTCTGGCTGGGAAAGGATTCTTTTAAAAGCGTGCCTGAGCATCTCAGAGCAATGTCAGTGATGCCAA AGAGACCAACTTGGCCTCCTTGGGCACCAACTCTGATGGCTGAGTTGCACAAACGTGGCTCAGATGTTGGCATGC CCCCCGAACCCTGAGCTTGGGCTTGTGGGGCCCAGCATGGCTGTGCCTGTGAGGGAAGCCACATCAGTGAGAG AAAGTTGCATTCTCTCAGGGGCCTAGATTGGCTTGGGGCAGGTGCTTGTTGAAAAGCATGAGTGTTTCTGCTTTG GGAAACCCTTCCAGGGCTCTGGTTGGAAACTTGGCCAGTAAGGACAGGGCCTTGGGCCTCCCAAGGAGTTCACAA TGATGCCAGGAAGGGTCCCTGAGCCTGGGTTCCAGTCAGCTTGGCTAACAGAATGGGGCTTGGGAATTCCAGGGG CAACTGAGCATCCACCCCATTAGCCAGTGATCTGGACAGGGACAGCTGGCTACAGGGGAATCAAAGGCTGTTCTGT ACAGTTTTACCAGAAACTGTGACCTTGGGTAAGGCTCCTCACTTTTCTGGGCCTCAACTTCCTCATCTGCAAAAT TGCGAGCCTGGTGCACCTGGTTCCTGTCTCCGTGGGCTGGTTTCCTTCAGCCCCTGATGCCCAGGCTGGGTGCAG GCTCTCATCTGGTCCATGCCCAGATGCTGCCTCAGACAAGAACTCTGGGAATCCTAACAGACTCTGCTTTCCTCT CTTCGTGGTTTGTCCTCCTCTTTTATTCTTGTGTAATGATGAGACATAATTAAGGGTCATCTACAATGGACAAT TTTCAAGGTGCTGATGTGATGTCACAACCTCCGCTACATCCTGAGTAAGTCAGTGTCCCCAACAGCAGATGAGGC TGGGTCTTTCCTCATTTCTGCTTCTGGGATGACATCAGTGGGAGAGTTGAAGATCTGAGAATTCTAAAGGAAATG TTCTCTGATGGGAGGAGAGGGAACTTATTTCCCTTCAAAGTAGTTTGCTTCTTAAGACCACTCCTCCAG AATGTCTTTAACCAGACATCATTTCAGAAGGTGGGGCAGCTGCTTCCTTAGGAAGAGTGGGCCTGATAGCTCAAC CAACTCCTTTAGCATGTAAACTCACAGAAGGCAAGAACCCCTTTTTTTAGACTTTCCAAATGCATCCTGCAAAGA GAGAGATAGCTGATAGGGACTGACAAGCACACTGTTTAGATAAGAAGCAATTACCCTTTTATATCTGTGCTCTAT CGGCTGTTTCGTACAACATTCTTGCCAATTCCCTTGAGGAGAAAATTCTTCACATGGCTTCTGCATGTACAGTAT

193/6881 FIGURE 180C

TTGGGCAGCAAAACATGATTAAAGTCAGTTTGAAAATGG

194/6881 FIGURE 181

MFNGEPGPASSGASRNVVRSSSIGGEICGSQQAGGGAGTTTAKKRRSSLGAKMVAIVGLTQWSKSTLQLPQPEGA TKKLRSNIRRSTETGIAVEMRSRVTRQGSRESTDGSTNSNSSDGTFIFPTTRLGAESQFSDFLDGLGPAQIVGRQ TLATPPMGDVHIAIMDRSGQLEVEVIEARGLTPKPGSKSLPATYIKVYLLENGACLAKKKTKMTKKTCDPLYQQA LLFDEGPQGKVLQVIVWGDYGRMDHKCFMGMAQIMLDELDLSAAVTGWYKLFPTSSVADSTLGSLTRRLSQSSLE SATSPSCS

AAGCTGCTGACATCCTGGATCTAGGGTTGTAAAGAAGATTACATGAGCTAATGGATGTGAAAAACATCTTAAAAAC TCTCAAATACTTTTCAACTTTGGAGGATTATTATGATTTTCATTCTGTTCAGCGGCTATACTCAGACTTTACTCT TAATGCAGCATCTAGTGCTTTTTGCATGGCCCAAAGGGGCTCTGTGCTGCTCCACTACAGAGGAAACTTCAAGAA ATGCTGGTTTGCTACAGTGTTTTAGCTTGTGAGATTCTCTGGGACCTTCCCTGCTCCATCATGGGGTCACCTCTA GGTCATTTTACCTGGGACAAATACCTAAAAGAAACATGTTCAGTCCCAGCGCCTGTCCATTGCTTCAAGCAGTCC TACACACCTCCAAGCAACGAGTTCAAGATCAGTATGAAATTGGAAGCACAGGACCCCAGGAACACCACATCCACC TGTATTGCCACAGTAGTTGGACTGACAGGTGCCCGCCTTCGCCTGCGCCTTGATGGGAGCGACAAAAAATGAC TTCTGGCGGCTGGTTGACTCAGCTGAAATCCAGCCTATTGGGAACTGTGAAAAGAATGGGGGTATGCTACAGCCA CCTCTTGGATTTCGGCTGAATGCGTCTTCTTGGCCCATGTTCCTTTTGAAGACGCTAAATGGAGCAGAGATGGCT CCCATCAGGATTTTCCACAAGGAGCCACCATCGCCTTCCCACAACTTCTTCAAAATGGGAATGAAGCTAGAAGCT GTGGACAGGAAGAACCCTCATTTCATTTGCCCAGCCACTATTGGGGAGGTTCGGGGGCTCAGAGGTGCTTGTCACT TTTGATGGGTGGCGAGGGGCCTTTGACTACTGGTGCCGCTTCGACTCCCGAGACATCTTCCCTGTGGGCTGGTGT TCCTTGACTGGAGACAACCTGCAGCCTCCTGGCACCAAAGTTGTGATTCCAAAGAATCCCTATCCTGCCTCCGAT GTGAATACTGAGAAGCCCAGCATCCACAGCAGCACCAAAACTGTCTTGGAACATCAACCAGGGCAGAGGGGGGCGT AAACCAGGAAAGAAGCGGGGCCGGACACCCAAGACCCTAATTTCCCATCCCATCTCTGCCCCATCCAAGACAGCT GAACCTTTGAAATTCCCAAAGAAGAGAGGTCCCAAACCTGGCAGCAAGAGAAACCTCGGACTTTGCTGAACCCA CCACCTGCCTCACCAACAACCAGCACTCCTGAACCGGATACCAGCACTGTACCCCAGGATGCTGCCACCATCCCC AGCTCAGCCATGCAGGCCCCAACAGTTTGTATCTACTTGAACAAGAATGGCAGCACAGGCCCCCACTTAGATAAG AAGAAGGTCCAGCAACTCCCTGACCATTTTGGACCAGCCCGTGCCTCTGTGGTGTTGCAGCAGGCTGTCCAGGCC GCCGTGTTTGACCGGGAACAGCATACCCTCAACCTCCCAGCAGTCAACAGCATCACCTACGTCCTCCGCTTCCTG GAGAAACTCTGCCACAACCTTCGTAGTGACAATCTGTTTGGCAACCAGCCCTTTACACAGACTCACTTGTCACTC CGCTCCTTGGAACCACACTCAGACTCAATGGACTCTGCCTCAAATCCCACCAACCTTGTCAGCACCTCCCAAAGG CACCGGCCCTTGCTTTCATCCTGTGGCCTCCCACCAAGCACTGCCTCAGCTGTGCGCAGGCTATGCTCCAGGGGA GTGTTAAAAGGATCAAATGAAAGAAGGGATATGGAATCATTTTGGAAACTAAATCGTTCCCCAGGGTCGGACCGA TACCTGGAGAGCCGCGATGCCTCTCGACTGAGTGGCCGGGACCCCTCCTCATGGACAGTCGAGGATGTGATGCAG TTTGTCCGGGAAGCTGATCCTCAGCTTGGACCCCACGCTGACCTGTTTCGCAAACACGAGATCGATGGCAAGGCC CTGCTGCTGCTGCGCAGTGACATGATGATGAAGTACATGGGCCTGAAGCTGGGGCCTGCACTCAAGCTCTCCTAC CACATTGACCGGCTGAAGCAGGGCAAGTTCTGAACCAGGAGAGGCAGCCTAGACAACCAAGTGGCAGCAGGTGGG GGCATTCTTCTAGGAATGAGGGGCATCAGCCCACCCCAGGCACCTCAGTGGGGTTCCGGGCCACCTCAGGACTCC AAGAGGCTGTGTGGAGCCACCACTCCTAGCCACAGCTGCCATGATAAGTCCTTCCATGAAGGACTGAGGAGGAG CCCTGGCTGGCCTCTCACCAGGAGTTTAGGCTGAATGCCTTCCACGTGATGGAGGAAAAAGGCCAACTCTGTCCTG GTCTTGCTGTGGCACCCCATCGCCCCACAGCTCGTACCTTCTCACCAGATTCCCCTGAATCCAAACTCGTGGTGC AAACCTCTACCTTTTTTACAAAAAGATCTTATTGTTAATTTATTGTTTCTGGCACTTGGGCAAACCCTGTAGTTA CAGATAGGCGTGGCCCCTCTTCAGAGGACACTACCCTAGGGCACTTTCTCTTTGAGGTGGAGAGACCCATAAAGC CTTGACCACATCACTCCATATGGGGAGGAGAAGGATCCCTGTCACCTTCTCCTCTCTCACGGGGCCCTTTTGCA GCCCTAGGCCTCATCTGTGGGAAGGGAGTCCCTGGCTTATACTGCCCCACCACAGCTCCTTGCCCTGGCCAGAA CTGCTGTCGAAGAAAATCAGGCCGGAAGGCCAAGAAGGCGCTAAGGGGGATGGGAGGGCAGGTTTTCCAGGCTGG AGTCGGTTCCACCCACTCGCCTGTCCACAGGCTTCCTTGTAAGCAAGTCAGCAGCACAGCTACTCACGCTGCCAT CTGGACTTATTTTATGTCAATCTGTTTATAAATAAAAACCAATATAGAT

196/6881 FIGURE 183

GCTGCAG<u>ATG</u>GCGGAAATGGATCCGGTAGCCGAGTTCCCCCAGCCTCCCGGTGCTGCGCGCTGGGCTGAGGTTAT GGCTCGCTTCGCGGCCAGGCTGGGCGCGCAGGGCCGGCGGGTGGTGTTACGTCAGGCGGCACCAAGGTCCC CCAGACTTGGCTGTCCGCTCTGCGGCCTTCGGGCCCAGCCCTTTCGGGCTTGCTGAGCCTGGAGGCCGAGGAGAA TGCACTTCCGGGTTTTGCTGAGGCTCTGAGGAGCTACCAGGAGGCTGCGGCTGCAGGCACCTTCCTGGCAGTAGA GTTCACCACTTTGGCGGACTATTTGCATCTGTTGCAGGCTGCGGCCCAGGCACTCAATCCGCTAGGCCCTTCTGC GATGTTTTACCTGGCTGCGGCTGTGTCAGATTTCTATGTTCCTGTCTCTGAAATGCCTGAACACAAGATCCAGTC ATCTGGGGGCCCACTGCAGATAACAATGAAGATGGTGCCAAAACTGCTTTCTCCTTTGGTTAAAGATTGGGCTCC AATTTATCAGCATCAAGTGGTGGTGGCTAATATCCTTGAGTCACGACAGTCCTTTGTGTTTATTGTAACCAAAGA CTCGGAAACCAAGTTATTGCTATCAAGGAAGAAA<u>TAG</u>AAAAAGGCGTAGAGATAGAAGAGAAGATAGTGGATAAT CTTCAGTCTCGACACACAGCTTTTATAGGTGACAGAAACTGAAGTAAAAAGCCCCTTATAGGATTAAAAATTGTTC AAAGGCAGTGGTGTAGGCAAATATGGTTTGGCATTCGTCTTTTAATGACACCTGATATGATGTCATTTTGATT TTGAAATTGAACACTAGAACTGTTAATCACCTTTAAAAAGAAGAGCTTATTGGGAATTATATATTCCTTAAAATA TACATGGGGGCCTGAATGTCAGCCATCTTTATACTATAGAAAAAGGATTATGGATGCATGAATGGTCATGCTTTG GAGATCAAATATTGGTTGAATGCCTATGTATGTCAGGCCCTGTGCTGAGCCATGAGGATTAAAAAGATGAATAAA **AAAGG**

197/6881 FIGURE 184

 $\label{thm:continuous} $$ \text{MAEMDPVAEFPQPPGAARWAEVMARFAARLGAQGRRVVLVTSGGTKVPLEARPVRFLDNFSSGRRGATSAEAFLA}$$ AGYGVLFLYRARSAFPYAHRFPPQTWLSALRPSGPALSGLLSLEAEENALPGFAEALRSYQEAAAAGTFLAVEFT $$ TLADYLHLLQAAAQALNPLGPSAMFYLAAAVSDFYVPVSEMPEHKIQSSGGPLQITMKMVPKLLSPLVKDWAPKAFIISFKLETDPAIVINRARKALEIYQHQVVVANILESRQSFVFIVTKDSETKLLLSRKK$

198/6881 FIGURE 185

CGGGAGCGGAGAGCGCAGAGAGCCCTGAGCAGCCCCACCGCCGCCGGCCTAGTTACCATCACACCCC GGGAGGAGCCGCAGCTGCCGCAGCCGGCCCCAGTCACCATCACCGCAACCATCAGCAGCCAGGCCGAGACCCAGC CAGGGAGCGGTGGCCCGGGCGCCTCACATCGGCGGCGCGCCGGGGGGACAAGAAGGTCATCGCAACGAAGG TTTTGGGAACAGTAAAATGGTTCAATGTAAGGAACGGATATGGTTTCATCAACAGGAATGACACCAAGGAAGATG TATTTGTACACCAGACTGCCATAAAGAAGAATAACCCCAGGAAGTACCTTCGCAGTGTAGGAGATGGAGAGACTG TGGAGTTTGATGTTGTTGAAGGAGAAAAGGGTGCGGAGGCAGCAAATGTTACAGGTCCTGGTGGTGTTCCAGTTC AAGGCAGTAAATATGCAGCAGACCGTAACCATTATAGACGCTATCCACGTCGTAGGGGTCCTCCACGCAATTACC AGCAAAATTACCAGAATAGTGAGAGTGGGGAAAAGAACGAGGGATCGGAGAGTGCTCCCGAAGGCCAGGCCCAAC AACGCCGGCCCTACCGCAGGCGAAGGTTCCCACCTTACTACATGCGGAGACCCTATGGGCGTCGACCACAGTATT CCAACCCTCCTGTGCAGGGAGAAGTGATGGAGGGTGCTGACAACCAGGGTGCAGGAGAACAAGGTAGACCAGTGA GGCAGAATATGTATCGGGGATATAGACCACGATTCCGCAGGGGCCCTCCTCGCCAAAGACAGCCTAGAGAGACG GCAATGAAGAAGATAAAGAAAATCAAGGAGATGAGACCCAAGGTCAGCAGCCACCTCAACGTCGGTACCGCCGCA ACTTCAATTACCGACGCAGACGCCCAGAAAACCCTAAACCACAAGATGGCAAAGAGACAAAAGCAGCCGATCCAC ATCCGGTTTAGTCATCCAACAAGAAGAATATGAAATTCCAGCAATAAGAATGAACAAAAGATTGGAGCTGAAG ACCTAAAGTGCTTGCTTTTTGCCCGTTGACCAGATAAATAGAACTATCTGCATTATCTATGCAGCATGGGGTTTT TATTATTTTTACCTAAAGACGTCTCTTTTTGGTAATAACAAACGTGTTTTTTAAAAAAAGCCTGGTTTTTCTCAAT ACGCCTTTAAAGG

199/6881 FIGURE 186

MSSEAETQQPPAAPPAAPALSAADTKPGTTGSGAGSGGPGGLTSAAPAGGDKKVIATKVLGTVKWFNVRNGYGFI
NRNDTKEDVFVHQTAIKKNNPRKYLRSVGDGETVEFDVVEGEKGAEAANVTGPGGVPVQGSKYAADRNHYRRYPR
RRGPPRNYQQNYQNSESGEKNEGSESAPEGQAQQRRPYRRRFPPYYMRRPYGRRPQYSNPPVQGEVMEGADNQG
AGEQGRPVRQNMYRGYRPRFRRGPPRQRQPREDGNEEDKENQGDETQGQQPPQRRYRRNFNYRRRPENPKPQDG
KETKAADPPAENSSAPEAEQGGAE

200/6881 FIGURE 187

GGCGGTTGGCGGTTCCGTTAGGTCTGAGGGAGCGATGGCGGTACGCGCGTTGAAGCTGCTGACCACACTGC TGGCTGTCGTGGCCGCTCCCCAAGCCGAGGTCGAGTCCGAGGCAGGATGGGGCATGGTGACGCCTGATCTGC TCTTCGCCGAGGGGACCGCAGCCTACGCGCGGGGGACTGGCCCGGGGTGGTCCTGAGCATGGAACGGGCGCTGC GCTCCCGGGCAGCCCTCCGCGCCCTTCGCCTGCGCTGCCGCACCCAGTGTGCCGCCGACTTCCCGTGGGAGCTGG TGGAGTTCCGCAAGCGGAGCCCCTACAACTACCTGCAGGTCGCCTACTTCAAGATCAACAAGTTGGAGAAAGCTG TTGCTGCAGCACACCCTTCTTCGTGGGCAATCCTGAGCACATGGAAATGCAGCAGAACCTAGACTATTACCAAA CCATGTCTGGAGTGAAGGAGGCCGACTTCAAGGATCTTGAGACTCAACCCCATATGCAAGAATTTCGACTGGGAG TGCGACTCTACTCAGAGGAACAGCCACAGGAAGCTGTGCCCCACCTAGAGGCGGCGCTGCAAGAATACTTTGTGG CCTATGAGGAGTGCCGTGCCCTCTGCGAAGGGCCCTATGACTACGATGGCTACAACTACCTTGAGTACAACGCTG CCCACCCAAGTCGAGAGAGCCCTTTGAAGACTTCCTCCCATCGCATTATAATTATCTGCAGTTTGCCTACTATA ACATTGGGAATTATACACAGGCTGTTGAATGTGCCAAGACCTATCTTCTCTTCTTCCCCAATGACGAGGTGATGA ACCAAAATTTGGCCTATTATGCAGCTATGCTTGGAGAAGAACACACCAGATCCATCGGCCCCCGTGAGAGTGCCA AGGAGTACCGACAGCGAAGCCTACTGGAAAAAGAACTGCTTTTCTTCGCTTATGATGTTTTTTGGAATTCCCTTTG TGGATCCGGATTCATGGACTCCAGAAGAAGTGATTCCCAAGAGATTGCAAGAGAAACAGAAGTCAGAACGGGAAA CAGCCGTACGCATCTCCCAGGAGATTGGGAACCTTATGAAGGAAATCGAGACCCTTGTGGAAGAGAAGACCAAGG AGTCACTGGATGTGAGCAGACTGACCCGGGAAGGTGGCCCCCTGCTGTATGAAGGCATCAGTCTCACCATGAACT CCAAACTCCTGAATGGTTCCCAGCGGTTGATGGACGGCGTAATCTCTGACCACGAGTGTCAGGAGCTGCAGA GACTGACCAATGTGGCAGCAACCTCAGGAGATGGCTACCGGGGTCAGACCTCCCCACATACTCCCAATGAAAAGT TCTATGGTGTCACTGTCTTCAAAGCCCTCAAGCTGGGGCAAGAAGGTCCTCTGCAGAGTGCCCACCTGT ACTACAACGTGACGGAGAAGGTGCGGCGCATCATGGAGTCCTACTTCCGCCTGGATACGCCCCTCTACTTTTCCT GCGCCATCCTTTACCTAAATGGGGACTTCGATGGCGGAAACTTTTATTTCACTGAACTGGATGCCAAGACCGTGA CGGCAGAGGTGCAGCCTCAGTGTGGAAGAGCCGTGGGATTCTCTTCAGGCACTGAAAACCCACATGGAGTGAAGG CAGCTCGAGCGGGTGAGAGCAGCTGGTGCTGTGGTGACCCGTTCCCAGAGCGCCCTTGGTTTGCCTTTCTCTTCC CCAAATCCCATTGCCAGTGGCTGAGACACGAAAGGAGCACTTGGGACACCAGCTCCAACGCCCTGTCATTATGGT CACATTGCCTTGTCCTCCTGGGCCTGTGAACGGGATCCAGGTGGGGAAAGAGGTCAAGACAGGAGCGATG CTGAGTTCTTGGTTCCCTCCTTGGGCCCCACTTCAGCTGTCCTTTTCCAGAGAGTAGGACCTGCTGGGAAGGAGA TGAGCCTGGGGCCATTAAGGAACCTTCCTTGTCCCCTGGGAAGTAGCAGCTGAGAGATAGCGAGTGTCTGGAGCG CAGCCCAGAAGAGAGCCCTCTCCCAGGAGCAGCCCCTGGATGCCCAGCAGGGTCCCCCCGAACCTGCACAAGA GTCTCTCTCAGGCAGTGAATCGAAGCCCAAGGATGAGCTATGACAGCGTCCAGGTCAGACGGATGGGTGACTAGA CCCATGGAGAGGAACTCTTCTGCACTCTGAGCTGGCCAGCCCCTCGGGGCTGCAGAGCAGTGAGCCTACATCTGC CACTCAGCCGAGGGGACCCTGCTCACAGCCTTCTACATGGTGCTACTGCTCTTGGAGTGGACATGACCAGACACC GCACCCCTGGATCTGGCTGAGGGCTCAGGACACAGGCCCACCCCCAGGGGCCTCCACAGGCCGCTGCATG

TAGTCGCGGGTCCCCGAGTGAGCACGCCAGGGAGCCAGGCCAAACGACGGGGGTCGGAGTCAGAGTCGCAGTG GGAGTCCCCGGACCGGAGCACGAGCCTGAGCGGGAGAGCGCCGCTCGCACCCGTCGCACCCGCGTACCCGGC TGGGAGGAGCAGTGCTTGGCTCCTGCAGTTTGGCTACAACACTGGAGTCATCAATGCCCCCCAGAAGGTGATCG AGGAGTTCTACAACCAGACATGGGTCCACCGCTATGGGGAGAGCATCCTGCCCACCACGCTCACCACGCTCTGGT CCCTCTCAGTGGCCATCTTTTCTGTTGGGGGCATGATTGGCTCCTTCTCTGTGGGCCTTTTCGTTAACCGCTTTG GCCGGCGGAATTCAATGCTGATGATGAACCTGCTGGCCTTCGTGTCCGCCGTGCTCATGGGCTTCTCGAAACTGG GCAAGTCCTTTGAGATGCTGATCCTGGGCCGCTTCATCATCGTGTGTACTGCGGCCTGACCACAGGCTTCGTGC CCATGTATGTGGGTGAAGTGTCACCCACAGCCTTTCGTGGGGCCCTGGGCACCCTGCACCAGCTGGGCATCGTCG TCGGCATCCTCATCGCCCAGGTGTTCGGCCTGGACTCCATCATGGGCAACAAGGACCTGTGGCCCCTGCTGCTGA GCATCATCTTCATCCCGGCCCTGCTGCAGTGCATCGTGCTGCCCCTTCTGCCCCGAGAGTCCCCGCTTCCTGCTCA TCAACCGCAACGAGGAGAACCGGGCCAAGAGTGTGCTAAAGAAGCTGCGCGGGACAGCTGACGTGACCCATGACC TGCAGGAGATGAAGGAAGAGTCGGCAGATGATGCGGGAGAAGAAGGTCACCATCCTGGAGCTGTTCCGCTCCC CCGCCTACCGCCAGCCCATCCTCATCGCTGTGGTGCTGCAGCTGTCCCAGCAGCTGTCTGGCATCAACGCTGTCT TCTATTACTCCACGAGCATCTTCGAGAAGGCGGGGGTGCAGCAGCCTGTGTATGCCACCATTGGCTCCGGTATCG TCGCTGGCATGGCGGGTTGTGCCATACTCATGACCATCGCGCTAGCACTGCTGGAGCAGCTACCCTGGATGTCCT ATCTGAGCATCGTGGCCATCTTTGGCTTTGTGGCCTTCTTTGAAGTGGGTCCTGGCCCCATCCCATGGTTCATCG TGGCTGAACTCTTCAGCCAGGGTCCACGTCCAGCTGCCATTGCCGTTGCAGGCTTCTCCAACTGGACCTCAAATT TCATTGTGGGCATGTGCTTCCAGTATGTGGAGCAACTGTGTGGTCCCTACGTCTTCATCATCTTCACTGTGCTCC TGGTTCTGTTCTTCATCTTCACCTACTTCAAAGTTCCTGAGACTAAAGGCCGGACCTTCGATGAGATCGCTTCCG GCTTCCGGCAGGGGGGGGCCAAAGTGATAAGACACCCGAGGAGCTGTTCCATCCCCTGGGGGCTGATTCCC AAGTGTGAGTCGCCCCAGATCACCAGCCCGGCCTGCTCCCAGCAGCCCTAAGGATCTCTCAGGAGCACAGGCAGC CCAGAAGAATATTCAGGACTTAACGGCTCCAGGATTTTAACAAAAGCAAGACTGTTGCTCAAATCTATTCAGACA AGCAACAGGTTTTATAATTTTTTTTATTACTGATTTTGTTATTTTTTATATCAGCCTGAGTCTCCTGTGCCCACATC CCAGGCTTCACCCTGAATGGTTCCATGCCTGAGGGTGGAGACTAAGCCCTGTCGAGACACTTGCCTTCTTCACCC AGCTAATCTGTAGGGCTGGACCTATGTCCTAAGGACACTAATCGAACTATGAACTACAAAGCTTCTATCCCAG GAGGTGGCTATGGCCACCCGTTCTGCTGGCCTGGATCTCCCCACTCTAGGGGTCAGGCTCCATTAGGATTTGCCC CTTCCCATCTCCTACCCAACCACTCAAATTAATCTTTCTTTACCTGAGACCAGTTGGGAGCACTGGAGTGCA GGGAGGAGGGGGAAGGGCCAGTCTGGGCTGCCGGGTTCTAGTCTCCTTTGCACTGAGGGCCACACTATTACCAT GAGAAGAGGGCCTGTGGGAGCCTGCAAACTCACTGCTCAAGAAGACATGGAGACTCCTGCCCTGTTGTGTATAGA TGCAAGATATTTATATATTTTTTGGTTGTCAATATTAAATACAGACACTAAGTTATAGTATATCTGGACAAGCC AACTTGTAAATACACCACCTCACTCCTGTTACTTACCTAAACAGATATAAATGGCTGGTTTTTAGAAACATGGTT AACGGCTTAGACTTCGACTCAGGATCCAGTCCCTTACACGTACCTCTCATCAGTGTCCTCTTGCTCAAAAATCTG TTTGATCCCTGTTACCCAGAGAATATATACATTCTTTATCTTGACATTCAAGGCATTTCTATCACATATTTGATA GTTGGTGTTCAAAAAAACACTAGTTTTGTGCCAGCCGTGATGCTCAGGCTTGAAATCGCATTATTTTGAATGTGA **AGGGAA**

MEPSSKKLTGRLMLAVGGAVLGSLQFGYNTGVINAPQKVIEEFYNQTWVHRYGESILPTTLTTLWSLSVAIFSVG
GMIGSFSVGLFVNRFGRRNSMLMMNLLAFVSAVLMGFSKLGKSFEMLILGRFIIGVYCGLTTGFVPMYVGEVSPT
AFRGALGTLHQLGIVVGILIAQVFGLDSIMGNKDLWPLLLSIIFIPALLQCIVLPFCPESPRFLLINRNEENRAK
SVLKKLRGTADVTHDLQEMKEESRQMMREKKVTILELFRSPAYRQPILIAVVLQLSQQLSGINAVFYYSTSIFEK
AGVQQPVYATIGSGIVNTAFTVVSLFVVERAGRRTLHLIGLAGMAGCAILMTIALALLEQLPWMSYLSIVAIFGF
VAFFEVGPGPIPWFIVAELFSQGPRPAAIAVAGFSNWTSNFIVGMCFQYVEQLCGPYVFIIFTVLLVLFFIFTYF
KVPETKGRTFDEIASGFRQGGASQSDKTPEELFHPLGADSQV

CACGTCGTTCACGGCCTTCTTCGGCCCCTCTAGCACGACATTGAGGCCTGGCTTCAGAAGCCCTCGGGAAAACGC CTCGCCGCACGCACGTCCCACACACTCTCCTCAACTTTTGATTGGGACTTCCGCTTCCGGCGGCAAACCATAC TTCCGGTTTGTCGTTGCTATAGGAACCGCTACGGCGTTTGAAAGTGTCCGGGTTGCTTAGGATCCCTACAGGTAG CGCCTCTGGATACATGCGTGGTCTGCTGACCCAGAGAGAAACGAAAGCAGAACTGTTTGGCGGGAGATCATGTCA GCCGTGGTAGCTCAGACGCTGCATGTTTTTGGTCTTCGATCCCACGTGGCCAACAATATCTTCTACTTCGATGAA GGCTCAGAGAAGAGTCAGGGCATGTTGGCCTTGTCCATCAGTCCCAATCGGCGGTACCTCGCTATCTCTGAGACT TTTGACTTCCAAGTTCAGAAATTTATTAGCATGGCTTTTTCTCCAGACTCCAAATACCTATTGGCTCAGACGTCA CCTCCAGAGTCAAATCTTGTCTACTGGCTGTGGGAAAAACAGAAAGTAATGGCCATTGTTAGAATCGACACTCAG AACAACCCTGTCTACCAGGTGAGCTTCAGTCCACAGGATAACACTCAGGTGTGTCACTGGAAATGGGATGTTT AAGCTTCTCCGTTTTGCTGAGGGAACCCTGAAGCAAACCAGCTTTCAGAGGGGAGAACCCCAAAACTATCTAGCC CACACCTGGGTGGCTGATGACAAGATTGTCGTTGGCACTGACACAGGCAAACTCTTCCTCTTTGAATCTGGAGAT CAGCGTTGGGAGACCAGCATAATGGTCAAGGAACCTACCGATGGCTCAAAGAGCCTGGATGTCATTCAGGAATCA GAGAGCCTGATTGAATTTCCACCAGTCAGTTCTCCACTCCCTTCCTATGAACAGATGGTGGCGGCCAGTAGCCAT AGCCAGATGTCCATGCCCCAGGTGTTTGCCATTGCAGCCTATTCAAAGGGATTTGCCTGTTCTGCTGGGCCAGGG AGAGTTCTGCTGTTTGAGAAGATGGAAGAAAAGGATTTTTACCGTGAGAGCAGAAAATCAGGATTCCTGTGGAC CCGCAGAGCAATGATCCAAGTCAGTCTGACAAACAGGACGTTCTCTGCCTGTGCTTCAGCCCCTCAGAGGAAACT CTGGTTGCCAGCACCAGTAAGAACCAACTCTACAGCATCACCATGTCCCTGACAGAGATCAGCAAGGGAGCCTGC TCACTTTGAGTATTTGATGTATCCATTGCACTCAGCACCCATCACCGGTCTAGCTACCTGCATCCGCAAACCCCT TATAGCCACCTGTTCTCTGGATCGATCCATCCGCCTTTGGAATTATGAAACAACACCCTGGAACTATTTAAGGA ATACCAAGAAGAGGCATATTCCATCAGCCTTCATCCATCTGGACACTTCATTGTAGTAGGGTTTGCTGACAAACT ACGCCTCATGAATCTACTCATTGATGATATACGTTCTTTCAAAGAATACTCTGTTAGAGGATGCGGAGAGTGTTC CTTTAGCAATGGAGGTCACCTGTTTGCTGCAGTCAATGGAAATGTGATTCACGTTTACACCACCACGAGCCTAGA GAACATCTCAAGCCTGAAAGGACACACAGGGAAGATTCGCTCAATTGTGTGGAATGCAGATGATAGCAAACTGAT GTCTTGCAGCTACAACTGTGTTACTGTCTCCCCCGATGCCAAAATTATCTTTGCTGTTGGATCAGACCACACCCT CAAGGAGATTGCAGATTCCTTGCCTTCGAGAGATATCGGCGTTTGATGTCACCTACACCGCCATTGTCATCTCGC ATTCTGGACGCATGATGTTTGTGGGCACCTCGGTGGGAACCATTCGTGCCATGAAGTACCCTCTGCCTCTGCAGA AGGAATTCAATGAGTACCAGGCCCATGCCGGTCCTATCACCAAGGTGAGCAGGGCCCTCTCCCCAGGAACCCAGT ATTTATTCATCCATCATTGAATCACCATCTATTGACTATGAATATACTCTTTGTTTAAACTACTTCCAGGA AAGGGGCCGTTTGGTGGATGCCGTAGCTGCCGTGAGTGTGGGCTGCACTTGACCACAGCTGCCTCCTCCTCCAGA GAATGCCCCAGACTGAAAGGAGCCATAGCCCTGAAGATTGGCCCCTACCTCTCCCTGAGGGTACAAAAGGCCACC CCAGGGGCAATACCATGAGTACACATTTGTAAATTGTCCTTCCATTCACCCTTCTCATAAAGTAGTATCTATGTT CAACAGTCAAAATGTGGAAGCAACCAAGCATCCATCGACAGACGAATGCATAAGCAAAAGATGGTATATCTATAC **AATGGAACAATACCCTGCCTAAAAAGGAAGGGAATTCTGCAATGTGCTACCACATGGATGAACCTTGAGGATGTT** ATGCTAAATTAAATAAGGCCAACCACAAAAAGATAAGTACAGTGTGATTCCACTTTTAGGAGATACTTGGAGCAG TCAGAATCACAAAGACAGAGTGGTGGTTGGCAGGGGCTGCAGGAAGGGGGAATGAGGAATGATTGTTTCATAGGT ATAGAGTTTTGGTTTTACAAGACAAAAGGATTATGGGGGGTAGTTGGTGGCAATGGCTGCACAACATTACAAATGT ATTTAATAACATGAACTGTACACTTGAAAATGGTTAAGATAGCAAATTTTACAGAATATGTATTTTACGACAATT TTAAAAATGAAATAAAAAAGAATTATCTTGC

MSAVVAQTLHVFGLRSHVANNIFYFDEQIIIFPSGNHCVKYNVDQKWQKFIPGSEKSQGMLALSISPNRRYLAIS
ETVQEKPAITIYELSSIPCRKRKVLNNFDFQVQKFISMAFSPDSKYLLAQTSPPESNLVYWLWEKQKVMAIVRID
TQNNPVYQVSFSPQDNTQVCVTGNGMFKLLRFAEGTLKQTSFQRGEPQNYLAHTWVADDKIVVGTDTGKLFLFES
GDQRWETSIMVKEPTNGSKSLDVIQESESLIEFPPVSSPLPSYEQMVAASSHSQMSMPQVFAIAAYSKGFACSAG
PGRVLLFEKMEEKDFYRESREIRIPVDPQSNDPSQSDKQDVLCLCFSPSEETLVASTSKNQLYSITMSLTEISKG
EPAHFEYLMYPLHSAPITGLATCIRKPLIATCSLDRSIRLWNYETNTLELFKEYQEEAYSISLHPSGHFIVVGFA
DKLRLMNLLIDDIRSFKEYSVRGCGECSFSNGGHLFAAVNGNVIHVYTTTSLENISSLKGHTGKSLNCVECR

205/6881 FIGURE 192

GCGATTCGGTGGCACGTGGAGCCACGGCGTGGGAGTAGGGGGCTGAAGGCAGCAGCAGCAGCCACGGCCCCCT $\verb|CCGAGGGCTTCTGAAGCCAGGCCTCAATGTCGTGCTAGAGGGGGCCGAAGAAGGCCGTGAACGACGTGAATGGCCT|\\$ GAAGCAATGTTTGGCAGAATTCAAGCGGGATCTGGAATGGGTTGAAAGGCTCGATGTGACACTGGGTCCGGTACC GGAGATCGGTGGATCTGAGGCGCCAGCACCTCAGAACAAGGACCAGAAAGCTGTTGATCCAGAAGACGACTTCCA GCGAGAGATGAGTTTCTATCGCCAAGCCCAGGCCGCAGTGCTTGCAGTCTTACCCCGCCTCCATCAGCTCAAAGT CCCTACGAAGCGACCCACTGATTATTTTGCGGAAATGGCCAAATCTGATCTGCAGGTGCAGAAGATTCGACAGAA GCTGCAGACTAAACAGGCTGCCATGGAGAGGTCTGAAAAAGCTAAGCAACTGCGAGCACTTAGGAAATACGGGAA GAAGGTGCAAACGGAGGTTCTTCAGAAGAGGCCAGGAGAAAGCCCATATGATGAATGCTATTAAGAAATATCA GAAAGGCTTCTCTGATAAACTGGATTTCCTTGAGGGAGATCAGAAACCTCTGGCACAGCGCAAGAAGGCAGGAGC CAAAGGCCAGCAGATGAGGAAGGGGCCCAGTGCTAAACGACGGTATAAAAACCAGAAGTTTGGTTTTTGGTGGAAA GAAGAAAGGCTCAAAGTGGAACACTCGGGAGAGCTATGATGATGTATCTAGCTTCCGGGCCAAGACAGCTCATGG CAGAGGCCTCAAGAGGCCTGGCAAGAAAGGGTCAAATAAGAGACCTGGAAAACGAACAAGAGAGAAGATGAAGAA CAGAACACAC<u>TAA</u>ATAGCATCTTTGAATACAAAGAACCAAGAAAAAGGAATGAAGACTCGCAATTTCACGACACA TTGAGTTCAAATTGCCTTCATTTTATGATAAATAATGATTTAACTGAAAA

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MDTPPLSDSESESDESLVTDRELQDAFSRGLLKPGLNVVLEGPKKAVNDVNGLKQCLAEFKRDLEWVERLDVTLG
PVPEIGGSEAPAPQNKDQKAVDPEDDFQREMSFYRQAQAAVLAVLPRLHQLKVPTKRPTDYFAEMAKSDLQVQKI
RQKLQTKQAAMERSEKAKQLRALRKYGKKVQTEVLQKRQQEKAHMMNAIKKYQKGFSDKLDFLEGDQKPLAQRKK
AGAKGQQMRKGPSAKRRYKNQKFGFGGKKKGSKWNTRESYDDVSSFRAKTAHGRGLKRPGKKGSNKRPGKRTREK
MKNRTH

207/6881 FIGURE 194

CCACGCGTCCGGGCGTAAGCCAGGCGTGTTAAAGCCGGTCGGAACTGCTCCGGAGGGCACGGGCTCCGTAGGCAC TTCAGCTGGATGCACCCATCCCCAATGCACCCCTGCGCGCTGGCAGCGCAAAGCCAAGGAAGCCGCAGGCCCGG CCCCTCACCCATGCGGGCCGCCAACCGATCCCACAGCGCCGGCAGGACTCCGGGCCGAACTCCTGGCAAATCCA GTTCCAAGGTTCAGACCACTCCTAGCAAACCTGGCGGTGACCGCTATATCCCCCATCGCAGTGCTGCCCAGATGG AGGTGGCCAGCTTCCTCCTGAGCAAGGAGAACCAGTCTGAAAACAGCCAGACGCCCACCAAGAAGGAACATCAGA AAGCCTGGGCTTTGAACCTGAACGGTTTTGATGTAGAGGAAGCCAAGATCCTTCGGCTCAGTGGAAAACCACAAA ATGCGCCAGAGGGTTATCAGAACAGACTGAAAGTACTCTACAGCCAAAAGGCCACTCCTGGCTCCAGCCGGAAGA ${\tt CCTGCCGTTACATTCCTTCCCTGCCAGACCGTATCCTGGATGCGCCTGAAATCCGAAATGACTATTACCTGAACC}$ TTGTGGATTGGAGTTCTGGGAATGTACTGGCCGTGGCACTGGACAACAGTGTGTACCTGTGGAGTGCAAGCTCTG ACTACTTGGCTGTGGGCACCAGCAGTGCTGAGGTGCAGCTATGGGATGTGCAGCAGCAGAAACGGCTTCGAAATA TGACCAGTCACTCTGCCCGAGTGGGCTCCCTAAGCTGGAACAGCTATATCCTGTCCAGTGGTTCACGTTCTGGCC ACATCCACCATGATGTTCGGGTAGCAGAACACCATGTGGCCACACTGAGTGGCCACAGCCAGGAAGTGTGTG GGCTGCGCTGGGCCCCAGATGGACGACATTTGGCCAGTGGTGGTAATGATAACTTGGTCAATGTGTGGCCTAGTG CTCCTGGAGAGGGTGGCTGGGTTCCTCTGCAGACATTCACCCAGCATCAAGGGGCTGTCAAGGCCGTAGCATGGT GTCCCTGGCAGTCCAATGTCCTGGCAACAGGAGGGGGCACCAGTGATCGACACATTCGCATCTGGAATGTGTGCT CTGGGGCCTGTCTGAGTGCCGTGGATGCCCATTCCCAGGTGTGCTCCATCCTCTGGTCTCCCCATTACAAGGAGC TCATCTCAGGCCATGGCTTTGCACAGAACCAGCTAGTTATTTGGAAGTACCCAACCATGGCCAAGGTGGCTGAAC TCAAAGGTCACACATCCCGGGTCCTGACTCTGACCATGAGCCCAGATGGGGCCACAGTGGCATCCGCAGCAGCAG AAAGTCATGTCTCCCTTCATGTTTTTTTTTTTAAAA

MAQFAFESDLHSLLQLDAPIPNAPPARWQRKAKEAAGPAPSPMRAANRSHSAGRTPGRTPGKSSSKVQTTPSKPG GDRYIPHRSAAQMEVASFLLSKENQSENSQTPTKKEHQKAWALNLNGFDVEEAKILRLSGKPQNAPEGYQNRLKV LYSQKATPGSSRKTCRYIPSLPDRILDAPEIRNDYYLNLVDWSSGNVLAVALDNSVYLWSASSGDILQLLQMEQP GEYISSVAWIKEGNYLAVGTSSAEVQLWDVQQQKRLRNMTSHSARVGSLSWNSYILSSGSRSGHIHHHDVRVAEH HVAILSGHSQEVCGLRWAPDGRHLASGGNDNLVNVWPSAPGEGGWVPLQTFTQHQGAVKAVAWCPWQSNVLATGG GTSDRHIRIWNVCSGACLSAVDAHSQVCSILWSPHYKELISGHGFAQNQLVIWKYPTMAKVAELKGHTSRVLSLT MSPDGATVASAAADETLRLWRCFELDPARREREKASAAKSSLIHQGIR

GGCACGAGGGAACCGTCCGCAGCCGCGGAGCCGGGAGCCCTGCCCAAGTCGGAGCGGCGTCCCCTGCTGAGCCC TCTACTTGACGTCTACGCCCAGCACCTGGCCTTCTTCAGCCGCTTCAGTGCCCGAGGCCCTGCCCATGCCCTCC ACCCAGCTGCTAGCAGCAGCAGCAGCAGCAACTGCTCCCGGCCCAACGCCACCGCCTCTAGCTCCGGGCTCC CTGAGGTCCCCAGTGCCCGGTCCCACGGCTCCCACGCTGCCACCCTGTCCTGACTCGCCACCTGGTCTTG · CGGGTGCACAGGGAGAACCCAGGCGTGCTCATGGGCGGCCGATACACACCGCCCGACTGCACCCCAGCCCAGACG $\tt GTGGCGGTCATCATCCCCTT{\color{red}{TAG}} ACACCGGGAACACCACCTGCGCTACTGGCTCCACTATCTACACCCCATCTTG$ AGGCGGCAGCGGCTACGGCGTCTATGTCATCAACCAGCATGGTGAGGACACCTTCAACCGGGCCAAGCTG $\tt CTTAACGTGGGCTTCCTAGAGGCGCTGAAGGAGGATGCCGCCTATGACTGCTTCATCTTCAGCGATGTGGACCTG$ GTCCCCATGGATGACCGCAACCTATACCGCTGCGGCGACCAACCCCGCCACTTTGCCATTGCCATGGACAAGTTT GGCTTCCGGCTTCCCTATGCTGGCTACTTTGGAGGTGTCAGGCCTGAGTAAGGCTCAGTTTCTGAGAATCAAT GGCTTCCCCAATGAGTACTGGGGCTGGGGTGGCGAGGATGATGACATCTTCAACCGGATCTCCCTGACTGGGATG AAGATCTCACGCCCAGACATCCGAATTGGCCGCTACCGCATGATCAAGCACGACCGCGACAAGCATAACGAACCT AACCCTCAGAGGTTTACCAAGATTCAAAACACGAAGCTGACCATGAAGCGGGACGGCATTGGGTCAGTGCGGTAC TGGCAGCTGCTCTGTGGAGGACCTCCAGGACTGAGACTGGGCTCTGTTTTCCAAGGGTCTTCACTAGGCCCCCTA GGAGTCAACCCTCCTTCCCGACCCCCTCCCCCTAGCCCAGCCCCAGTCACTGTCAGGGTCGGGCCAGCCCCTGCA CTGCCTCGCAGAGTGGCCTGGGCTAGGTCACTCCACCTCTGTGCCTCAGTTTCCCCCCCTTGAGTCCCCTAGG GCCTGGAAGGGTGGGAGGTATGTCTAGGGGGGCAGTGTCTCTCCAGGGGGGAATTCTCAGCTCTTGGGAACCCCCT TGCTCCCAGGGGAGGGGAAACCTTTTTCATTCAACATTGTAGGGGGCAAGCTTTGGTGCGCCCCCTGCTGAGGAG CAGCCCCAGGAGGGGACCAGAGGGGATGCTGTGTCGCTGCCTGGGATCTTGGGGTTGGCCTTTGCATGGGAGGCA GGTGGGGCTTGGATCAGTAAGTCTGGTTCCCGCCTCCCTGTCTGAGAGAGGAGGCAGGAGCCCCAGGGCCGGCTT

MSRLLGGTLERVCKAVLLLCLLHFLVAVILYFDVYAQHLAFFSRFSARGPAHALHPAASSSSSSSNCSRPNATAS SSGLPEVPSALPGPTAPTLPPCPDSPPGLAGAQGEPRRAHGRPIHTARLHPSPDGGGHHPL

211/6881 FIGURE 198

212/6881 FIGURE 199

CGTCTACGCCCAGCACCTGGCCTTCTTCAGCCGCTTCAGTGCCCGAGGCCCTGCCCATGCCCTCCACCCAGCTGC TAGCAGCAGCAGCAGCAACTGCTCCCGGCCCAACGCCACCGCCTCTAGCTCCGGGCTCCCTGAGGTCCC CAGTGCCCTGCCCGGTCCCACGCTCCCACGCTGCCACCCTGTCCTGACTCGCCACCTGGTCTTGTGGGCAGACT GCTGATCGAGTTCACCTCACCCATGCCCCTGGAGCGGGTGCAGAGGGAGAACCCAGGCGTGCTCATGGGCGGCCG ATACACACCGCCCGACTGCACCCCAGCCCAGACGGTGGCGGTCATCATCCCCTTTAGACACCGGGAACACCACCT GCGCTACTGGCTCCACTATCTACACCCCATCTTGAGGCGGCAGCGGCTGCGCTACGGCGTCTATGTCATCAACCA . GCATGGTGAGGACACCTTCAACCGGGCCAAGCTGCTTAACGTGGGCTTCCTAGAGGGGGCTGAAGGATGCCGC CTATGACTGCTTCATCTTCAGCGATGTGGACCTGGTCCCCATGGATGACCGCAACCTATACCGCTGCGGCGACCA ACCCCGCCACTTGCCATTGCCATGGACAAGTTTGGCTTCCGGCTTCCCTATGCTGGCTACTTTGGAGGTGTGTC AGGCCTGAGTAAGGCTCAGTTTCTGAGAATCAATGGCTTCCCCAATGAGTACTGGGGCTGGGGTGGCGAGGATGA TGACATCTTCAACCGGATCTCCCTGACTGGGATGAAGATCTCACGCCCAGACATCCGAATCGGCCGCTACCGCAT GATCAAGCACGACCGCGACAAGCATAACGAACCTAACCCTCAGAGGTTTACCAAGATTCAAAACACGAAGCTGAC CATGAAGCGGGACGGCATTGGGTCAGTGCGGTACCAGGTCTTGGAGGTGTCTCGGCAACCACTCTTCACCAATAT CACAGTGGACATTGGGCGGCCTCCGTGGCCCCCTCGGGGCTGACACTAATGGACAGAGGCTCTCGGTGCCGA CTCTGTTTTCCAAGGGTCTTCACTAGGCCCCCTAGCTACACCTGGAAGTTTCAGAACCCACTTTGGGGGGCCTCC $\tt CCCAGTCACTGTCAGGGTCGGGCCAGCCCCTGCACTGCCTCGCAGAGTGGCCTGGGCTAGGTCACTCCACCTCTC$ TGTGCCTCAGTTTCCCCCCCTTGAGTCCCCTAGGGCCTGGAAGGGTGGGAGGTATGTCTAGGGGGCAGTGTCTCT GGGGGCAAGCTTTGGTGCGCCCCCTGCTGAGGAGCAGCCCCAGGAGGGGACCAGAGGGGATGCTGTCGCTGCC TGGGATCTTGGGGTTGGCCTTTGCATGGGAGGCAGGTGGGGCTTGGATCAGTAAGTCTGGTTCCCGCCTCCCTGT CTGAGAGAGGAGGCAGGAGCCCCAGGGCCGGCTTGTGTTTGTACATTGCACAGAAACTTGTGTGGGTGCTTTAGT AAAAAACGTGAATGG

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MSRLLGGTLERVCKAVLLLCLLHFLVAVILYFDVYAQHLAFFSRFSARGPAHALHPAASSSSSSSNCSRPNATAS
SSGLPEVPSALPGPTAPTLPPCPDSPPGLVGRLLIEFTSPMPLERVQRENPGVLMGGRYTPPDCTPAQTVAVIIP
FRHREHHLRYWLHYLHPILRRQRLRYGVYVINQHGEDTFNRAKLLNVGFLEALKEDAAYDCFIFSDVDLVPMDDR
NLYRCGDQPRHFAIAMDKFGFRLPYAGYFGGVSGLSKAQFLRINGFPNEYWGWGGEDDDIFNRISLTGMKISRPD
IRIGRYRMIKHDRDKHNEPNPQRFTKIQNTKLTMKRDGIGSVRYQVLEVSRQPLFTNITVDIGRPPSWPPRG

214/6881 FIGURE 201

GCGGAGAAACAGTAGTTAGGATGGCTGAAGGGGATACTCACCGGCTGAAGGCCGACTGTGATTCCCCCTACCCCC ACAAGGCGATTTTGACCCCCTGAGGGCTGCTCTAGAGGACTCAGGCCCCGAAGCTGTCCCAGGGAGGTCCCCGCT GCATCCCACCCAAGCTGTGCCTCATGGAGTCGATGTTTAGCAGCCCTGCCGAGGCGGCGCTGCAGCGAGAGA $\tt CCGGGGTGCCAGGACTGCTTACTCCTCTTCCGGACCTGGACGAGTGTACGAGCTGGACCTGGAGTCGCTGGATTTG$ CACGACTGGAGGAGACGACAGGGTCAAAGATGTTCATTCTGGGTGACACAGCCTACGGCAGCTGCTGCGTGGATG CACTGCCCGTTGCCTTCGTGCTCCAACGTTCTGTGGCCTTGGAGCCTCTGTGTCAAGGCCTTTGAGGCCCAGA ACCCAGACCCCAAAGCGCCTGTGGTGCTGAGTGAGCCGGCCTGTGCCCATGCCCTGGAGGCTTTGGCTACTC TCCTGCGCCCACGGTACCTGGACCTGCTAGTCTCCAGCCCAGCTTTTCCCCAACCAGTGGGTTCCCTGAGTCCAG AGCCTATGCCCCTAGAGCGTTTTGGGCGCCGCTTCCCCCTTGCCCCAGGGAGGCGTCTAGAAGAGTATGGTGCCT TCTATGTAGGGGGCTCTAAGGCCAGCCCTGACCCAGACCTTGACCCAGACCTGAGTCGGCTGCTCTTGGGGTGGG CACCAGGTCAACCCTTCTCCTCCTGCTGTCCAGATACAGGGAAGACTCAGGATGAGGGTGCCCGGGCTGGACGGC GTGTAGCCCAACACCGTGAGGCACTGGCCCACTTGCGGAACCTGACTCAGGCTGCCAAGCGTAGCTATGTGT TGGCCCTGGGGGCGCCCACCCCTGCCAAGCTTGCCAACTTCCCTGAGGTGGATGTCTTTGTGCTATTAGCCTGTC CTCTGGGTGCTCTAGCCCCCCAGCTTTCTGGTAGCTTCTTCCAGCCTATACTGGCACCATGTGAGCTGGAAGCTG CCTTCCACGTGGCTCTCCCACCACCTGAGTCAGAGCTGTGGGAAACCCCAGACGTGTCACTCATTACTGGAGATC TCCGACCCCACCTGCCTGGAAGTCATCAAATGATCATGGAAGCTTGGCTCTGACCCCACGGCCCCAGCTGGAGC TGGCTGAGAGCAGTCCTGCAGCCTCATTCCTTAGTTCCCGGAGCTGGCAAGGGCTGGAGCCCCGCCTGGGTCAGA CGCCAGTGACAGAAGCTGTGAGTGGAAGACGAGGGATTGCCATCGCCTATGAGGATGAGGGAAGCGGCTGATACC ATGTGGGGCTGGAGACATAGATGGACTTATGAATGGCTGCTAGGACCTTTAGTGCTCCCTGCACCAACCTCCCAT CCCCTGCCAAGATCCTTGAAGGACCCTGGAAGGAGGGAGAGCAGCCCTTCACAGGATAGGATCCGTCTCT GTCCTGTCCTGGCACTGGCACAAGCTCAGCCCATGCCCAGTAATGCGTGTTGTTTGGCTGATGGAATAAAGGGCT TAGGGACTTCCCTGAGGCCTCTGGACCCATCTGTCTTCCTGAGGGCAGCCCAGGACCTTTGGCCAATCCCAGTTC CCAGGCTGCAGTTGAGGGTCTGTCCTTGTCAAAAGGCAGGTGCTAGACAGGTCTAGACCAGGGTTTCTCAAACTCG TACTTGACATTTGGGGCCAGATAATTCTTTGTTGTGGGGCTGTCTGGTGTATGGTAGGGTGCTCAGCAGCATCCC TGGCCTCTGCCCACTAGACATCAGAAGCACTCCCCCAGTTGTGACAACCAAAAATATCTCCAGACCTTGGCAAAT TTCAAGTGTTCAGACAGCCACATGAGGGGACAGTGCAGCTACAGGATATGCCATCATGGCAGAAAGTTCTGTTGG

215/6881 FIGURE 202A

GCCTTCGCCTGCTGGAAAAGCAGTAGGATCGGCCAGTGGCGACAGCAGGAGCTGAGCCTAAGCCCTGGCGGGGCT TTGGGCTGTAGATTCCTGTCTGACTAAAGGGACCTCAAAAAGGAGGGAAAATGCTTCTGAGTCTGAAACTCTGA ATCCCAGTGCTAGGATAATGACCTTTTATCCAACTATGGAAGAGTTCCGAAACTTCAGTAGATACATTGCCTACA TTGAATCCCAAGGAGCTCATCGGGCAGGCTAGCCAAGGTTGTTCCTCCAAAAGAGTGGAAGCCACGAGCATCCT ATGATGACATTGATGATTTGGTCATTCCTGCCCCCATTCAACAGCTGGTGACGGGGCAGTCTGGCCTCTTTACTC AGTACAACATACAGAAGAAAGCCATGACTGTTCGAGAGTTCCGCAAGATAGCCAATAGCGATAAGTACTGTACCC CACGCTATAGTGAGTTTGAAGAGCTCGAGCGGAAATACTGGAAAAATCTTACATTCAATCCTCCAATCTATGGTG CAGATGTGAATGGTACCCTCTATGAAAAGCATGTTGATGAGTGGAATATTGGCCGGCTGAGAACAATCCTGGACT TGGTGGAAAAGGAGTGGGATCACCATTGAGGGTGTGAACACCCCATACCTGTACTTTGGCATGTGGAAGACAT CCTTTGCTTGGCACACTGAAGACATGGACCTCTACAGCATCAACTACCTGCACTTTGGAGAACCAAAGTCCTGGT ACTCTGTTCCACCTGAGCATGGAAAGCGGTTGGAACGCCTCGCCAAAGGCTTTTTCCCAGGAAGTGCTCAAAGCT GTGAGGCATTTCTCCGCCACAAGATGACCCTGATTTCCCCGTTAATGCTGAAGAAATATGGAATTCCCTTTGACA AGGTGACTCAAGAGGCTGGAGAGTTTATGATCACTTTCCCTTATGGTTACCATGCCGGCTTTAACCATGGTTTTA CTGGGAAGGACAACACAGTTATTGACCATACTCTGCCCACGCCAGAAGCAGCTGAGTTTCTTAAGGAGAGTGAAC ACCTGAAGACAAGCCTGGCCAAGCACCGAATAGGGACAAAGAGGCACCGAGTTTGTCTTGAAATACCACAGGAGG TGAGTCAGAGTGAGCTCTTCCCCAAGGAGGATCTGAGTTCTGAGCAGTATGAGATGACGGAGTGCCCGGCAGCCC $\tt TCGCCCCTGTGAGGCCCACCCATAGCTCTGTGCGGCAAGTTGAGGATGGTCTTACCTTCCCAGATTATTCTGACT$ CCACTGAAGTCAAATTTGAAGAGCTTAAAAATGTCAAACTAGAAGAGGAGGAGGAGGAGGAGGAAGAACAAGAAGCAG CTGCCTTGGATCTTTCTGTGAATCCTGCGTCTGTAGGGGGACGCCTTGTCTTCTCAGGCTCCAAAAAAGAAATCAT CTTCTAGCCTGGGCTCTGGCTCTTCACGGGATTCTATCTCTTCTGATTCAGAAACTAGTGAGCCTCTCTCCTGCC GAGCCCAAGGGCAAACGGGAGTTCTCACTGTGCACAGTTATGCCAAAGGGGATGGCAGGGTCACTGTGGGAGAGC ${\tt CATGCACGAGGAAGAAGGGAGCGCCGCTAGAAGTTTCAGTGAGCGGGAGCTGGCAGAGGTTGCAGATGAATACA}$ TTGTGCTGCAGGAGTGTGATGATGATGAGACATCTGAACAGCTGACCCCTGAGGAAGAGGCTGAGGAGACAG AGGCCTGGGCCAAGCCTCTGAGCCAACTGTGGCAGAACCGACCTCCAAACTTTGAGGCTGAGAAGGAATTCAATG AGACCATGGCCCAACAGGCCCCTCACTGCGCTGTCTGTATGATCTTCCAGACTTATCATCAGGTTGAATTTGGAG GCTTTAATCAGAACTGTGGAAATGCTTCAGATTTAGCCCCCCAGAAGCAGAGGACCAAGCCATTGATTCCAGAAA TGTGCTTCACTTCGACTGGCTGCAGCACGGACATCAACCTTTCTACTCCTTATCTTGAGGAGGATGGCACCAGCA TACTCGTTTCCTGCAAGAAGTGCAGCGTCCGGGTCCATGCCAGTTGCTATGGGGTCCCCCCTGCAAAGGCTTCTG **AAGACTGGATGTTCTCGGTGTTCAGCCAATGCCCTAGAGGAGGACTGCTGTTTATGCTCATTACGAGGAGGGG** CCCTGCAGAGAGCAAATGATGACAGGTGGGTCCACGTTTCATGTGCTGTGGCAATTCTGGAAGCAAGGTTTGTCA ACATTGCAGAAAGAAGTCCGGTGGATGTGAGCAAAATCCCCCTGCCCCGCTTCAAACTGAAATGTATCTTCTGTA AGAAGCGGAGGAAAAGAACTGCTGGCTGCTGTGCGGTGTTCTCACGGCCGCTGCCCAACTGCCTTCCATGTGA GCTGCGCCCAGGCTGCCGGTGTGATGATGCAGCCTGACGACTGGCCTTTTGTGGTCTTCATTACCTGCTTTTCGGC ACAAGATTCCTAATTTGGAGCGTGCCAAGGGGGCCTTGCAAAGCATCACTGCAGGCCAGAAAGTCATTAGCAAGC ATAAGAACGGCCCTTCTACCAGTGTGAAGTGGTCAGGCTCACCACCGAGACCTTCTATGAAGTCAACTTTGATG ATGGCTCCTTCAGCGACAATCTTTATCCTGAGGACATAGTGAGCCAGGACTGTCTCCAGTTTGGTCCTCCTGCTG AAGGGGAAGTGGTCCAAGTGAGATGGACAGACGGCCAAGTCTATGGAGCCAAGTTTGTGGCCTCCCACCCTATCC AAATGTACCAGGTGGAGTTTGAGGATGGCTCACAACTTGTGGTTAAGAGAGATGATGTATACACACTGGATGAAG AGCTTCCCAAGAGAGTCAAATCTAGACTGTCAGTAGCCTCAGACATGCGCTTCAATGAGATTTTCACAGAGAAAG AGGTTAAGCAAGAAAAGAAACGGCAACGAGTTATCAACTCAAGATACCGGGAAGATTATATTGAGCCTGCACTAT ACCGGGCCATCATGGAGTAGGTGCTTCCAGGGTCCAAGGGATTCTCAGCCATCCAGGCAAGAGCACTCTGGGTTC CACAGCAGACAGCAGACGTGAAGTCTCTGAAAGTGAAGTTGTAAAAAAGGAAAAGGAATGAAATAACCGAC CCATCATCTTCTCACCCACCCTCATTGCATTCCGCTGTAGTGAAAGGACGAGCCATTTCTGGGCACGTGGCAGCA GTCGCTGATCTCCCAGCTGAGGGGCTGAGCACTGGAATGCTGTGGCTGCACTGGCCCCAGTCCATAGAGGGGTCA

FIGURE 202B

MASESETLNPSARIMTFYPTMEEFRNFSRYIAYIESQGAHRAGLAKVVPPKEWKPRASYDDIDDLVIPAPIQQLV
TGQSGLFTQYNIQKKAMTVREFRKIANSDKYCTPRYSEFEELERKYWKNLTFNPPIYGADVNGTLYEKHVDEWNI
GRLRTILDLVEKESGITIEGVNTPYLYFGMWKTSFAWHTEDMDLYSINYLHFGEPKSWYSVPPEHGKRLERLAKG
FFPGSAQSCEAFLRHKMTLISPLMLKKYGIPFDKVTQEAGEFMITFPYGYHAGFNHGFNCAESTNFATRRWIEYG
KQAVLCSCRKDMVKISMDVFVRKFQPERYKLWKAGKDNTVIDHTLPTPEAAEFLKESELPPRAGNEEECPEEDME
GVEDGEEGDLKTSLAKHRIGTKRHRVCLEIPQEVSQSELFPKEDLSSEQYEMTECPAALAPVRPTHSSVRQVEDG
LTFPDYSDSTEVKFEELKNVKLEEEDEEEEQEAAALDLSVNPASVGGRLVFSGSKKKSSSSLGSGSSRDSISSDS
ETSEPLSCRAQGQTGVLTVHSYAKGDGRVTVGEPCTRKKGSAARSFSERELAEVADEYMFSLEENKKSKGRRQPL
SKLPRHHPLVLQECVSDDETSEQLTPEEEAEETEAWAKPLSQLWQNRPPNFEAEKEFNETMAQQAPHCAVCMIFQ
TYHQVEFGGFNQNCGNASDLAPQKQRTKPLIPEMCFTSTGCSTDINLSTPYLEEDGTSILVSCKKCSVRVHASCY
GVPPAKASEDWMCSRCSANALEEDCCLCSLRGGALQRANDDRWVHVSCAVAILEARFVNIAERSPVDVSKIPLPR
FKLKCIFCKKRRKTAGCCVQCSHGRCPTAFHVSCAQAAGVMMQPDDWPFVVFITCFRHKIPNLERAKGALQSIT
AGQKVISKHKNGRFYQCEVVRLTTETFYEVNFDDGSFSDNLYPEDIVSQDCLQFGPPAEGEVVQVRWTDGQVYGA
KFVASHPIQMYQVEFEDGSQLVVKRDDVYTLDEELPKRVKSRLSVASDMRFNEIFTEKEVKQEKKRQRVINSRYR

 ${\tt AGTTACAGACAGCTGACC} {\tt ATG} {\tt GAAGCGAATGGGTTGGGACCTCAGGGTTTTCCGGAGCTGAAGAATGACACATTC}$ $\verb|CTGCGAGCCTGGGGAGAGGAAACAGACTACACTCCCGTTTGGTGCATGCGCCAGGCCGGTCACTTACCA| \\$ GAGTTTAGGGAAACCCGGGCTGCCCAGGACTTTTTCAGCACGTGTCGCTCTCCTGAGGCCTGCTGTGAACTGACT CTGCAGCCACTGCGTCGCTTCCCTCTGGATGCTGCCATCATTTTCTCCGACATCCTTGTTGTACCCCAGGCACTG GGCATGGAGGTGACCATGGTACCTGGCAAAGGACCCAGCTTCCCAGAGCCATTAAGAGAAGAGCAGGACCTAGAA CGCCTACGGGATCCAGAAGTGGTAGCCTCTGAGCTAGGCTATGTGTTCCAAGCCATCACCCTTACCCGACAACGA GGCTCAAGCACCATGGCTCAGGCCAAGCGCTGGCTCTATCAGAGACCTCAGGCTAGTCACCAGCTGCTTCGCATC AAGGCCAGGTTGCGGGAGGCAGGCCTGGCACCAGTGCCCATGATCATCTTTGCTAAGGATGGGCATTTTGCCCTG GTGGGGAAGACGGTGACATTGCAGGGCAACCTGGACCCCTGTGCCTTGTATGCATCTGAGGAGGAGATCGGGCAG TTGGTGAAGCAGATGCTGGATGACTTTGGACCACATCGCTACATTGCCAACCTGGGCCATGGGCTTTATCCTGAC ATGGACCCAGAACATGTGGGCGCCTTTGTGGATGCTGTGCATAAACACTCACGTCTGCTTCGACAGAAC<u>TGA</u>GTG TATTGTGTAGTTTTGTTGTGAAAGATTGTGCCCATATCCTCAGTTCTTTAGCCTCTGCTCCTTCCCTGGGAA CCCTCTCTATATCCTCTT

MEANGLGPQGFPELKNDTFLRAAWGEETDYTPVWCMRQAGRYLPEFRETRAAQDFFSTCRSPEACCELTLQPLRR FPLDAAIIFSDILVVPQALGMEVTMVPGKGPSFPEPLREEQDLERLRDPEVVASELGYVFQAITLTRQRLAGRVP LIGFAGAPWTLMTYMVEGGGSSTMAQAKRWLYQRPQASHQLLRILTDALVPYLVGQVVAGAQALQLFESHAGHLG PQLFNKFALPYIRDVAKQVKARLREAGLAPVPMIIFAKDGHFALEELAQAGYEVVGLDWTVAPKKARECVGKTVT LQGNLDPCALYASEEEIGQLVKQMLDDFGPHRYIANLGHGLYPDMDPEHVGAFVDAVHKHSRLLRQN

AGCTTTGCGCAGTGGCAGTATCGTAGCCAATGAGGTTTATCCGAGGCGCGATTATTGCTAATTGAAAACTTTTCC CAATACCCCGCCATGACGACTTGAAATATAGTCGGCATTGGCAATTTTTGACAGTCTCTACGGAGACTGCATGTG TTCACCACTGTACTGAGTGACCAACAGGTGGTGGAGCTGATCCCTGGGGGTGCAGGCATCGTCGTGGGATATGGG GACCGTTCTCGTTTCATCCAACTGGTCCAGAAGGCACGGCTAGAGGAGCAAGGAGCAGGTGGCAGCTATGCAG GCAGGTCTGCTGAAGGTGGTACCACAGGCTGTGCTGGACTTGCTGACCTGGCAAGAGTTGGAGAAGAAAGTGTGT GGGGATCCAGAGGTCACTGTGGATGCTCTGCGCAAGCTCACCCGGTTTGAGGACTTCGAGCCATCTGACTCGCGG GTGCAGTATTTCTGGGAGGCACTGAACAACTTCACCAACGAGGACCGGAGCCGCTTCCTGCGCTTTTGTCACGGGC CGCAGTCGCCTGCCAGCACGGATCTACATCTACCCAGACAAGCTGGGCTACGAGACCACAGACGCGCTGCCCGAG TCTTCCACTTGCTCCAGCACCTCTTCCTGCCACACTATGCCAGTGCCAAGGTATGCGAGGAGAAGCTCCGCTAT GCGGCCTACAACTGCGTGGCCATCGACACTGACATGAGCCCTTGGGAGGAGTGAGGCGTGCCGCCGGCTGTGGGA CCAGCAAGACTGCACGTGTCCCTCTTGGCCTTGCCCAGGGCGAAGACACCTTCCCTGCCCTGGTTTGGCTGACGT GCTCAGCAAAACCCCATGTGCCCTGCTCCTGTGTGCAGTTGGGGTAGGGGCAGCTGGCATGGTCAGGTAACACTA GGAATCTTCCACAAGCCCAGCACAAGCTGCCAGGCCTGAGCTACTTGAAGGGGGCCATCTAGGTCCCCAACCCAT GGACTTTGCCTCCATTTTCAGCTCCGCCTTTTTTCTCCTATTTTCTCTCTGGCTTTCTTCAGCCATGACTCACAA CTAAAAACATAAAACACTGGAGGTTAGTGGAGGCCCCTCCCCAAGCAGGAGCCTGGGATGGGCAGGGAGTGATA GCCAAACTCCTTGGTCACCTGCTCCAAGAAGGAAGCAGTAGCTGAGCACCTGCCCTCACATACTGCTCTTTTCCC CTTCCCTGACTCAGAACCCACACCACTCAATGTGAACTCTACTACCACGACCTCCCCATATTCCTCACTTCTCC ATCACCTCCAGCCTGACTCCCTGTCTGCCCTTTCACCCCCAAGATTTTGCACAGGTTAAGGCCAGTTATGGCCTT TTTGAAATCTGTAATAGCTCCCCTTTCCCCAACTCTAAAGCCTAGACCTTAAACCTGTTCCTAGAGCTATGCACA CCCCTGCCCAGTTTACCGTTCCTCCCTCAGGGCCTCCGTGACACTCCATGAAAAGAAGTTCTTGCATACCGGAA AGTTGAATAAATGGATGAATTCAAAAAAAAAAAAAAAA

FIGURE 207

 $\label{thm:condition} \begin{minipage} MEGMDKETFEFKFGKELTFTTVLSDQQVVELIPGGAGIVVGYGDRSRFIQLVQKARLEESKEQVAAMQAGLLKVV\\ PQAVLDLLTWQELEKKVCGDPEVTVDALRKLTRFEDFEPSDSRVQYFWEALNNFTNEDRSRFLRFVTGRSRLPAR\\ IYIYPDKLGYETTDALPESSTCSSTLFLPHYASAKVCEEKLRYAAYNCVAIDTDMSPWEE\\ \end{minipage}$

223/6881 FIGURE 209

 ${\tt MVRMNALADALKSINNAEKRGKRQVLLRPCSKVIVQFLTVMMKHGYIGEFEITDDHRAGKIVVNLTGRLNKCGAI} \\ {\tt SPRFDVQLKDLEKWQNNLLPSRQFDFIVLTTSAGIMDHEARRKHTGGKIQGFFF}$

224/6881 FIGURE 210

CTCTTTCCAGCCAGCCGAGCGATCGGCATCTCTCGGGACAACTGGCACAAGCGCCGCAAAACCGGGGGCAAGA
GAAAGCCCTACCACAAGAAGCGGAAGTATGAGTTGGGCCCCAGCTGCCAACACCAAGATTGGCCCCCGCCGC
TCCACACACTCCGTGTGCGGGAGGTAACAAGAAATACCGTGCCCTGAGGTTGGACGTGGGGAATTTCTCCTGGG
GCTCAGAGTGTTGTACTCGTAAAACAAGGATCATCGATGTTGTCTACAATGCATCTAATAACGAGCTGGTTCGTA
CCAAGACCCTGGTGAAGAAATTGCATCGTGCTCATCGACAGCACACCGTACCGACAGTGGTACGAGTCCCACTATG
CGCTGCCCCTGGGCCGCAAGAAGGGAGCCAAGCTGACTCCTGAGGAAGAAGAAAAAAACGATCTA
AAAAAATTCAGAAGAAATATGATGAAAGGAAAAAGAATGCCAAAATCAGCAGTCTCCTGGAGGAGCAGTTCCAGC
AGGGCAAGCTTCTTGCGTGCATCGCTTCAAGGCCGGGACAGTGGCCGAGCAGATGGCTATGTGCTAGAGGGCA
AAGAGTTGGAGTTCTATCTTAGGAAAATCAAGGCCCGCAAAGGCCAAA<u>TAA</u>ATCCTTGTTTTGTCTTCACCCATGT
AATAAAGGTGTTTATTGTTTTGTCCCACA

225/6881 FIGURE 211

MGISRDNWHKRRKTGGKRKPYHKKRKYELGRPAANTKIGPRRIHTVRVRGGNKKYRALRLDVGNFSWGSECCTRK TRIIDVVYNASNNELVRTKTLVKNCIVLIDSTPYRQWYESHYALPLGRKKGAKLTPEEEEILNKKRSKKIQKKYD ERKKNAKISSLLEEQFQQGKLLACIASRPGQCGRADGYVLEGKELEFYLRKIKARKGK

226/6881 FIGURE 212

ACGCTTGCGCGCGGATTTAAACTGCGGCGGTTTACGCGGCGTTAAGACTTCGTAGGGTTAGCGAAATTGAGGTT TCTTGGTATTGCGCGTTTCTCTTCCTTGCTGACTCTCCGAATGGCCATGGACTCGTCGCTTCAGGCCCGCCTGTT TCCCGGTCTCGCTATCAAGATCCAACGCAGTAATGGTTTAATTCACAGTGCCAATGTAAGGACTGTGAACTTGGA TGCAATAAACCCAGAACTCTTACAGCTTCTTCCCTTACATCCGAAGGACAATCTGCCCTTGCAGGAAAATGTAAC AAACTCCCGCAAGCAGTTTTCAGTTCCTCCTGCCCCACTAGGCCTTCCTGCCCTGCAGTGGCTGAAATACCATT GAGGATGGTCAGCGAGGAGATGGAAGAGCAAGTCCATTCCATCCGAGGCAGCTCTTCTGCAAACCCTGTGAACTC AGTTCGGAGGAAATCATGTCTTGTGAAGGAAGTGGAAAAAATGAAGAACAAGCGAGAAGAAGAAGAAGACCCAGAA CTCTGAAATGAGAATGAAGAGCTCAGGAGTATGACAGTTTTTCCAAACTGGGAATTTGCCCGAATGATTAA AGAATTTCGGGCTACTTTGGAATGTCATCCACTTACTATGACTGATCCTATCGAAGAGCACAGAATATGTGTCTG TCTCCTCTTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATCTGGAGAACCAAGCATTCTGCTTTGA CTTTGCATTTGATGAAACAGCTTCGAATGAAGTTGTCTACAGGTTCACAGCAAGGCCACTGGTACAGACAATCTT TGAAGGTGGAAAAGCAACTTGTTTTGCATATGGCCAGACAGGAAGTGGCAAGACACATACTATGGGCGGAGACCT CTCTGGGAAAGCCCAGAATGCATCCAAAGGGATCTATGCCATGGCCTCCCGGGACGTCTTCCTCCTGAAGAATCA ACCCTGCTACCGGAAGTTGGGCCTGGAAGTCTATGTGACATTCTTCGAGATCTACAATGGGAAGCTGTTTGACCT TCTGGTTAACTCTGCTGATGATGTCATCAAGATGATCGACATGGGCAGCCCTGCAGAACCTCTGGGCAGACATT TGCCAACTCCAATTCCTCCCGCTCCCACGCGTGCTTCCAAATTATTCTTCGAGCTAAAGGGAGAATGCATGGCAA GTTCTCTTTGGTAGATCTGGCAGGGAATGAGCGAGGCGGGGACACTTCCAGTGCTGACCGGCAGACCCGCATGGA GGGCGCAGAAATCAACAAGAGTCTCTTAGCCCTGAAGGAGTGCATCAGGGCCCTGGGACAGAACAAGGCTCACAC ${\tt CCCGTTCCGTGAGAGCAAGCTGACACAGGTGCTGAGGGGACTCCTTCATTGGGGGAGAACTCTAGGACTTGCAGATT}$ GCCACGATCTCACCAGGCATAAGCTCCTGTGAATATACTTTAAACACCCTGAGATATGCAGACAGGGTCAAGGAG CTGAGCCCCCACAGTGGGCCCAGTGGAGAGCAGTTGATTCAAATGGAAACAGAAGAGATGGAAGCCTGCTCTAAC GGGGCGCTGATTCCAGGCAATTTATCCAAGGAAGAGGAGGAACTGTCTTCCCAGATGTCCAGCTTTAACGAAGCC ATGACTCAGATCAGGGAGCTGGAGGAGAAGGCTATGGAAGAGCTCAAGGAGATCATACAGCAAGGACCAGACTGG CTTGAGCTCTCTGAGATGACCGAGCCAGACTATGACCTGGAGACCTTTGTGAACAAAGCGGAATCTGCTCTG GCCCAGCAAGCCAAGCATTTCTCAGCCCTGCGAGATGTCATCAAGGCCTTGCGCCTGGCCATGCAGCTGGAAGAG CAGGCTAGCAGACAAATAAGCAGCAAGAAACGGCCCCAGTGACGACTGCAAATAAAAATCTGTTTGGTTTGACAC CCAGCCTCTTCCCTGGCCCTCCCCAGAGAACTTTGGGTACCTGGTGGGTCTAGGCAGGGTCTGAGCTGGGACAGG TTCTGGTAAATGCCAAGTATGGGGGCATCTGGGCCCAGGGCAGCTGGGGAGGGGGTCAGAGTGACATGGGACACT ACGCCTTTGGGCCGAGCACTGAATGTCTTGTACTTTAAAAAAATGTTTCTGAGACCTCTTTCTACTTTACTGTCT AAATAAA

227/6881. FIGURE 213A

GCTGTCTCTCCGTGAGGAGCGCAGAGGAGGTCGCGGCGCCGGAGGCCCCAGAAGGCTCGAAGGCGCCGCGGGCT GGGGTCGGTGGCTTAGGGAGCCCGTCCGGCCATGGTGGCCGCGGTGGTGGTTGGCGCGGCTGCGCTGCGCCCG GGGCAGTGCGGAGCCGGGACAGTCGCGGCGCTGACGCCCGGGGCCCCAGCTGCAGATATGAAGCGGAGCCGCTG CCGCGACCGACCGCCGCCGCCGACCGCCGGGAGGATGGAGTTCAGCGGGCAGCGGAGCTGTCTCAGTC TTTGCCGCCGCGGGGGGCGCCGGGAGGCAGCGGCTGGAGGAGCGGACGGGCCCCGCGGGGCCCGAGGG CAAGGAGCAGGATGTAGCTGGAGTTAGCCCCTGCCCCTCACGAAACCCAGTAATCCTGACATATTTTCATC CACTGGAAAAGTTAAACTTCAGCGACAACTGAGTCAGGATGATTGTAAGTTATGGAGAGGAAACCTGGCCAGCTC TCTATCGGGTAAGCAGCTGCTCCCTTTGTCCAGCAGTGTACATAGCAGTGTGGGACAGGTGACTTGGCAGTCGTC AGGAGAAGCATCAAACCTGGTTCGAATGAGAAACCAGTCCCTTGGACAGTCTGCACCTTCTCTTACTGCTGGCCT GAAGGAGTTGAGCCTTCCAAGAAGAGGCAGCTTTTGTCGGACAAGTAACCGCAAGAGCTTGATTGTGACCTCTAG CACATCACCTACACTACCACGGCCACACTCCATGGCCACACGGTAACAGTCCTTTGGACAGCCCCG GAATTTCTCTCCAAATGCACCTGCTCACTTTTCTTTTGTTCCTGCCCGTAGGACTGATGGGCCGCGCTGGTCTTT GGCCTCTTTGCCCTCTTCAGGATATGGAACTAACACTCCTAGCTCCACTGTCTCATCATCATCATCCTCACAGGA AAAGCTGCATCAGTTGCCTTTCCAGCCTACAGCTGATGAGCTGCACTTTTTGACGAAGCATTTCAGCACAGAGAG CGTACCAGATGAGGAAGGACGCCAGTCCCCAGCCATGCGGCCTCCCGGAGCCTCAGTCCCGGACGATCCCC GGAAGAGCGACTAGCAGAGTTTATTTCCTCCAACACTCCAGACAGCGTGCTGCCCTTGGCAGATGGAGCCCTGAG CTTTATTCATCATCAGGTGATTGAGATGGCCCGAGACTGCCTGGATAAATCTCGGAGTGGCCTCATTACATCACA ATACTTCTACGAACTTCAAGATAATTTGGAGAAACTTTTACAAGATGCTCATGAGCGCTCAGAGAGCTCAGAAGT GTTTGACCCTGAAGAGTTCTACCACCTTTTAGAAGCAGCTGAGGGCCACGCCAAAGAGGGACAAGGGATTAAATG TGACATTCCCCGCTACATCGTTAGCCAGCTGGGCCTCACCCGGGATCCCCTAGAAGAAATGGCCCAGTTGAGCAG CTGTGACAGTCCTGACACTCCAGAGACAGATGATTCTATTGAGGGCCATGGGGCATCTCTGCCATCTAAAAAAGAC ACCCTCTGAAGAGGACTTCGAGACCATTAAGCTCATCAGCAATGGCGCCTATGGGGCTGTATTTCTGGTGCGGCA CAAGTCCACCCGGCAGCGCTTTGCCATGAAGAAGATCAACAAGCAGAACCTGATCCTACGGAACCAGATCCAGCA GGCCTTCGTGGAGCGTGACATACTGACTTTCGCTGAGAACCCCTTTGTGGTCAGCATGTTCTGCTCCTTTGATAC CAAGCGCCACTTGTGCATGGTGATGGAGTACGTTGAAGGGGGGAGACTGTGCCACTCTGCTGAAGAATATTGGGGC CCTGCCTGTGGACATGGTGCGTCTATACTTTGCGGAAACTGTGCTGGCCCTGGAGTACTTACACAACTATGGCAT CGTGCACCGTGACCTCAAGCCTGACAACCTCCTAATTACATCCATGGGGCACATCAAGCTCACGGACTTTGGACT GTCCAAAATTGGCCTCATGAGTCTGACAACGAACTTGTATGAGGGTCATATTGAAAAGGATGCCCGGGAATTCCT GGACAAGCAGGTATGCGGGACCCCAGAATACATTGCGCCTGAGGTGATCCTGCGCCAGGGCTATGGGAAGCCAGT GGACTGGTGGGCCATGGGCATTATCCTGTATGAGTTCCTGGTGGGCTGCGTCCCTTTTTTTGGAGATACTCCGGA GGAGCTCTTTGGGCAGGTGATCAGTGATGAGTTGTGTGGCCTGAGGGTGATGAGGCACTGCCCCCAGACGCCCA GGACCTCACCTCCAAACTGCTCCACCAGAACCCTCTGGAGAGACTTGGCACAGGCAGTGCCTATGAGGTGAAGCA GCACCCATTCTTTACTGGTCTGGACTGGACAGGACTTCTCCGCCAGAAGGCTGAATTTATTCCTCAGTTGGAGTC AGAGGATGATACTAGCTATTTTGACACCCGCTCAGAGCGATACCACCACATGGACTCGGAGGATGAGGAAGAAGT GAGTGAGGATGGCTTGAGATCCGCCAGTTCTCTTCCTGCTCTCCAAGGTTCAACAAGGTGTACAGCAGCAT CCATTCAGATGGCCTGGCAGGGCTCAAAGGCCGAGACCGGAGCTGGGTGATTGGCTCCCCTGAGATATTACGGAA GCGGCTGTCGGTGTCTGAGTCATCCCACACAGAGAGTGACTCAAGCCCTCCAATGACAGTGCGACGCCGCTGCTC AGGCCTCCTGGATGCGCCTCGGTTCCCGGAGGGCCCTGAGGAGGCCAGCACCCTCAGGAGGCAACCACAGGA GGGTÄTATGGGTCCTGACACCCCCATCTGGAGAGGGGGTATCTGGGCCTGTCACTGAACACTCAGGGGAGCAGCG GCCAAAGCTGGATGAGGAAGCTGTTGGCCGGAGCAGTGGTTCCAGTCCAGCTATGGAGACCCGAGGCCGTGGGAC CTCACAGCTGGCTGAGGGAGCCACAGCCAAGGCCATCAGTGACCTGGCTGTGCGTAGGGCCCGCCACCGGCTGCT CTCTGGGGACTCAACAGAGAAGCGCACTGCTCGCCCTGTCAACAAGTGATCAAGTCCGCCTCAGCCACAGCCCT CTCACTCCTCATTCCTTCGGAACACCACACCTGCTCCCCGTTGGCCAGCCCCATGTCCCCACATTCTCAGTCGTC CAACCCATCATCCCGGGACTCTTCTCCAAGCAGGGACTTCTTGCCAGCCCTTGGCAGCATGAGGCCTCCCATCAT

FIGURE 213B

CATCCACCGAGCTGCCAAGAAGTATGGCTTCACCCTGCGGGCCATTCGCGTCTACATGGGTGACTCCGATGTCTA CACCGTGCACCATATGGTGTGGCACGTGGAGGATGGAGGTCCGGCCAGTGAGGCAGGGCTTCGTCAAGGTGACCT CATCACCCATGTCAATGGGGAACCTGTGCATGGCCTGGTGCACACGGAGGTGGTAGAGCTGATCCTGAAGAGTGG AAACAAGGTGGCCATTTCAACAACTCCCCTGGAGAACACTCCATTAAAGTGGGGCCAGCTCGGAAGGGCAGCTA CAAGGCCAAGATGGCCCGAAGGAGCAAGAGGAGCCGCGGCAAGGATGGGCAAGAAAAGCAGAAAAAGGAGCTCCCT GTTCCGCAAGATCACCAAGCAAGCATCCCTGCTCCACACCAGCCGCAGCCTTTCTTCCCCTTAACCGCTCCTTGTC GGTGACCCCGATGCTGCATTCAGTGGGAGGGAATTCATCACAGAGCAGCTCCCCCAGCTCCAGCGTGCCCAG TTCCCCAGCCGGCTCTGGGCACACGCCCCAGCTCCCTCCACGGTCTGGCACCCAAGCTCCAACGCCAGTACCG CTCTCCACGGCGCAAGTCAGCAGCATCCCACTGTCACCACTGGCCCACACCCCTTCTCCCCCACCCCAAC AGCTTCACCTCAGCGGTCCCCATCGCCCCTGTCTGGCCATGTAGCCCAGGCCTTTCCCACAAAGCTTCACTTGTC ACCTCCCTGGGCAGGCAACTCTCACGGCCCAAGAGTGCGGAGCCACCCCGTTCACCACTACTCAAGAGGGTGCA GTCGGCTGAGAAACTGGCAGCAGCACTTGCCGCCTCTGAGAAGAAGCTAGCCACTTCTCGCAAGCACAGCCTTGA CCTGCCCCACTCTGAACTAAAGAAGGAACTGCCGCCCAGGGAAGTGAGCCCTCTGGAGGTAGTTGGAGCCAGGAG TGTGCTGTCTGGCAAGGGGGCCCTGCCAGGGAAGGGGGTGCTGCAGCCTGCTCCCTCACGGGCCCTAGGCACCCT CCGGCAGGACCGAACGACGAGTCGCTGCAGAAGCAAGAAGCCATTCGTGAGGTGGACTCCTCAGAGGA CGACACCGAGGAAGGGCCTGAGAACAGCCAGGGTGCACAGGAGCTGAGCTTGGCACCTCACCCAGAAGTGAGCCA GAGTGTGGCCCCTAAAGGAGCAGGAGAGAGTGGGGAAGAGGATCCTTTCCCGTCCAGAGACCCTAGGAGCCTGGG CCCAATGGTCCCAAGCCTATTGACAGGGATCACACTGGGGCCTCCCAGAATGGAAAGTCCCAGTGGTCCCCACAG GAGGCTCGGGAGCCCACAAGCCATTGAGGAGGCTGCCAGCTCCTCCTCAGCAGGCCCCAACCTAGGTCAGTCTGG AGCCACAGACCCCATCCCTGAAGGTTGCTGGAAGGCCCAGCACCTCCACACCCAGGCACTAACAGCACTTTC TCCCAGCACTTCGGGACTCACCCCACCAGCAGTTGCTCTCCCCAGCTCCACCTCTGGGAAGCTGAGCATGTG GTCCTGGAAATCCCTTATTGAGGGCCCAGACAGGGCATCCCCAAGCAGAAAGGCAACCATGGCAGGTGGGCTAGC TGCACAAGCAGTGAAAGAGGATCCAGCCCTGAGCATCACCCAAGTGCCTGATGCCTCAGGTGACAGAAGGCAGGA CGTTCCATGCCGAGGCTGCCCCTCACCCAGAAGTCTGAGCCCAGCCTCAGGAGGGGCCAAGAACCAGGGGGCCA TCAAAAGCATCGGGATTTGGCATTGGTTCCAGATGAGCTTTTTAAAGCAAACATAGCAGTTGTTTGCCATTTCTTG CACTCAGACCTGTGTAATATATGCTCCTGGAAACC

229/6881 FIGURE 214

230/6881 FIGURE 215

 ${\tt MVGEKVEKPDAKEKKPKAKKADVGGKVKKGNLKAKKPKKGKPHCSRNPVLVRGIGRYCRSAMYSRKAMYKRKYSAAKSKVEKKKKEKVLATVTKPVGCDKNGGARVVKLRKMPRYYPTEDVPRKLLSHGKKSFSQHVRP}$

231/6881 FIGURE 216

AATCTGCCATTTTCTGTCCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGT TCGCTGGTTCGCCACCTCAGGGGAACGATGGCCATGGAGTCCACAGCCACTGCCGCCGTCGCCGCGGAGCTGGTT TCTGCCGACAAAATTGAAGATGTTCCTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGT GAAGCTAAGAAACTATTGGGTTTAGGACAGAAACATCTGGTGATGGGGGGATATTCCAGCAGCTGTCAATGCATTC CAGGAAGCAGCTAGTCTTTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTCTAT GGGAAATCACTTCTGGAGTTGGCAAGAATGGAGAATGGTGTTGTGGGAAACGCCTTGGAAGGTGTGCATGTGGAA GAGGAAGAAGAAGAAAAAACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAA AAGCCTGAAACTGATAAAGAACAGGACAGTGAAATGGAGAAGGGTGGAAGAGAGATATGGATATAAGTAAATCT GCAGAGGAGCCACAGGAAAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGA GCAGCACCAGAAGGACCGAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAA GAAAAATCAGTTTCTGGAACTGATGTCCAAGAAGAGTGCAGAGAAAAAAGGAGGTCAGGAGAAGCAGGGAGAGGTA ATTGTGAGCATAGAGGAGAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACT AAGGTAGTTACCTCTGAAAACGAGGCAGGAAAGGCGGTTCTTGAACAACTGGTAGGTCAAGAAGTACCACCTGCT GAAGAGTCACCAGAGGTGACAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAG CCTGGGCAGGAGGCTCCAGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCT ATTGAACCACAGACTTCTATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTCAGGGCA AAGCTGGTTCCTAGTCAGGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACC AAGGTAGCCCAGGGAGCTACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAG AGAGAAGAACAGATGAAAGAGGGTGAAGAAACTGAAGGCTCAGAAGAGGATGATAAAGAAAATGATAAGACCGAA GAAATGCCAAATGATTCAGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAG CTTGCCTGGGATATGCTGGATTTAGCAAAGATCATTTTTAAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCT GCCCAGGCACATCTTAAACTCGGAGAAGTTAGTGTTGAATCTGAAAACTATGTGCAAGCTGTGGAGGAGTTCCAG TCCTGCCTTAACCTGCAGGAACAGTACCTGGAAGCCCACGACCGTCTCCTTGCAGAGACCCACTACCAGCTGGGC TTGGCTTATGGGTACAACTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAAC CTAAAGGAACTGCTACCCGAAATTAGAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCT GAACTGGCTCTGAAAGCTACTCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTC TCCATGATTGCCAGTAGAAAGCCAACAGACGGTGCTTCCTCATCAAATTGTGTGACTGATATTTCCCACCTTGTC AACGGAGGCAGTGGGGATGCTGTCCCCAGTGGAAATGAAGTTTCGGAAAACATGGAGGAGGAGGCTGAGAATCAG GCTGAAAGCCGGGCAGCAGTGGAGGGGACAGTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGT<u>TAA</u>GAGGGG GCACAGCCCTCCCCAAGGGAAAGTGTTTTTGTATATAATGTATTTTTTCACTTTTTGGAGGATTCTTTTTGTAT GAGCACTGCTGGTTTTATATATTAGCCAAAGGTTTTGTTCTGGCCTTCTGTACTGATCTGTGTTCCTGATCCTAA TTCCTATCTGTCTAACGTGGAGGTGATCAAGTGTGGCTGTAGGCCTTTGTTTTCCAATGGTGCTATATTCTGTTT TCAAACACTTCACTGAACCCAGCTGTCTTGCAAACTTTCAGTGGTGCTGTCCCTGGATGGGGGCTACAAAAACAA GAATTGGTGAAGATCTTGCTCTTCAGTGCTGAAAATGGATGATGGACTTTGGCTGTGAGCCAGGCCTAGGATGGT TCTTGTCCTATATCCACCTAGTCTTCACCTGGGGCTATAATTCTGTCCTGGAAAAAGAACTCTGAAAACCTGGGT CAGGGGAATGATTCCTAAGGAAAACGGTCTGCATTTGAGCTCTGGTTTGAAAGTAGCCAAGGGGACTGATGGTGG TGAGATATATCAACACTTGGAATTGTTACCCATCTGCAGAATTGACTTCTCAAATAAAGATGCTAAAAATCT

232/6881 FIGURE 217

MAMESTATAAVAAELVSADKIEDVPAPSTSADKVESLDVDSEAKKLLGLGQKHLVMGDIPAAVNAFQEAASLLGK
KYGETANECGEAFFFYGKSLLELARMENGVLGNALEGVHVEEEEGEKTEDESLVENNDNIDEEAREELREQVYDA
MGEKEEAKKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEEPQEKVDLTLDWLTETSEEAKGGAAPEGPNEA
EVTSGKPEQEVPDAEEEKSVSGTDVQEECREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTLEKQGTAVEVEAESL
DPTVKPVDVGGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVTTEAAEASAVEAGSEVSEKPGQEAPVLP
KDGAVNGPSVVGDQTPIEPQTSIERLTETKDGSGLEEKVRAKLVPSQEETKLSVEESEAAGDGVDTKVAQGATEK
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPNDSVLENKSLQENEEEEIGNLELAWDMLDLA
KIIFKRQETKEAQLYAAQAHLKLGEVSVESENYVQAVEEFQSCLNLQEQYLEAHDRLLAETHYQLGLAYGYNSQY
DEAVAQFSKSIEVIENRMAVLNEQVKEAEGSSAEYKKEIEELKELLPEIREKIEDAKESQRSGNVAELALKATLV
ESSTSGFTPGGGGSSVSMIASRKPTDGASSSNCVTDISHLVRKKRKPEEESPRKDDAKKAKQEPEVNGGSGDAVP
SGNEVSENMEEEAENQAESRAAVEGTVEAGATVESTAC

233/6881 FIGURE 218

234/6881 FIGURE 219

MAASCVLLHTGQKMPLIGLGTWKSEPGQVKAAVKYALSVGYRHIDCAAIYGNEPEIGEALKEDVGPGKAVPREEL FVTSKLWNTKHHPEDVEPALRKTLADLQLEYLDLYLMHWPYAFERGDNPFPKNADGTICYDSTHYKETWKALEAL VAKGLVQALGLSNFNSRQIDDILSVASVRPAVLQVECHPYLAQNELIAHCQARGLEVTAYSPLGSSDRAWRDPDE PVLLEEPVVLALAEKYGRSPAQILLRWQVQRKVICIPKSITPSRILQNIKVFDFTFSPEEMKQLNALNKNWRYIV PMLTVDGKRVPRDAGHPLYPFNDPY

235/6881 FIGURE 220

236/6881 FIGURE 221

 ${\tt MSSGNAKIGHPAPNFKATAVMPDGQFKDISLSDYKGKYVVFFFYPLDFTFVCPTEIIAFSDRAEEFKKLNCQVIGASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILRQITVNDLPVGRSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK$

237/6881 FIGURE 222

TCAGGGGTCGGCGGGTGACTTCTTTCCGGAAGAAAGCGAGGAACGCGCTCTGCGGGGTGAGCCGGACTCCCCAAC TCCGGACGATCAGCCCAGGACTGAGAGCCCCGAAGTCCCCAACCACAAGTAAGCGGCCCCAGAAGGACAAGTCTA ${\tt GGTCGCCGTCCAGAGCGCC} \underline{{\tt ATG}} {\tt GCCGCCCCCCCCCTTCGTTTGTGCCACATCGCCTTCCACGTGCCCGGGGCA}$ GCCCCTAGCCCGGAACCTGCAGCGCCTCTTCGGCTTCCAGCCCCTGGCTTCGCGGGAGGTGGACGGCTGGCGGCA GCTAGCCCTGCGCAGCGGCGACGCGGTCTTTTTGGTGAACGAGGGCGCAGGGTCTGGAGAGCCGCTGTACGGCCT GGATCCGCGTCACGCCGTGCCCAGCGCCACAAACCTGTGCTTCGACGTGGCGGACGCCGGCGCGCAACCCGGGA GCTGGCAGCGCTGCCTGCCTGCCCTCCCGTTCGCGTGCGGGACGCGCAGGGTGCCGCCACTTACGC CCCCGGCAGCTCCCCCACACTTTTGCGCTGGTTCCACGACTGCCTGGGCTTTTGCCACTTGCCGCTGAGCCCAGG TGAGGATCCCGAGCTGGGCCTCGAAATGACAGCAGGGTTTGGGCTTGGGGGACTGAGGCTTACAGCCCTGCAGGC CCAGCCGGGCAGCATTGTCCCCACTCTTGTTCTGGCTGAGTCCCTTCCGGGGGCGACGACACGACAGGACCAGGT GGAGCAGTTCCTGGCCCGGCACAAGGGGCCCAGGCCTGCAGCACGTGGGGCTGTATACGCCTAACATTGTGGAGGC CACTGAGGGGGTGGCAACTGCTGGAGGCCAGTTCCTGGCTCCCCTGGGGCATACTACCAGCAGCCAGGAAAGGA CAAGTTTCTGCTTCAGGTCTTCACCAAGTCCCTTTTTACTGAGGACACTTTCTTCCTGGAGCTGATTCAGAGGCA GGGGGCCACTGGCTTTGGTCAGGGCAACATCAGAGCTCTGTGGCAGTCCGTACAGGAGCAATCTGCCAGGAGCCA AACATCTGCAGGAGGCCCAACTAGTGAAAGGCTTTGCCTCCGGGGGGCAGGTGTGACTTCCATTTCATCAGTGCC TGCCAGAAGCTGTGTCTCTCATTGGGCTCCAAAGAGGTGGGATTTTTTAAAACTAAAACATTTCTTATATACAGT

238/6881 FIGURE 223

MAAPALRLCHIAFHVPAGQPLARNLQRLFGFQPLASREVDGWRQLALRSGDAVFLVNEGAGSGEPLYGLDPRHAV PSATNLCFDVADAGAATRELAALGCSVPVPPVRVRDAQGAATYAVVSSPAGILSLTLLERAGYRGPFLPGFRPVS SAPGPGWVSRVDHLTLACTPGSSPTLLRWFHDCLGFCHLPLSPGEDPELGLEMTAGFGLGGLRLTALQAQPGSIV PTLVLAESLPGATTRQDQVEQFLARHKGPGLQHVGLYTPNIVEATEGVATAGGQFLAPPGAYYQQPGKERQIRAA GHEPHLLARQGILLDGDKGKFLLQVFTKSLFTEDTFFLELIQRQGATGFGQGNIRALWQSVQEQSARSQEA

239/6881 FIGURE 224

240/6881 FIGURE 225

 ${\tt MGLEDEQKMLTESGDPEEEEEEELVDPLTTVREQCEQLEKCVKARERLELCDERVSSRSHTEEDCTEELFDFL}\\ {\tt HARDHCVAHKLFNNLK}$

241/6881 FIGURE 226

CGCGCCTGAGGAGGAGGAGGAGGGGGGGGGGCC<u>ATG</u>GCTGCTGTGGTGGCGGCTGCGGGGTGGCGGGGACC GGCGGTCCTGCAGGTGGCCGGTCTCTACCGGGGCCTGTGCGCGGTGCGCAGCCGCGCCCTGGGCCTGGGCCTCGT GGTCGGGGCCGAGGCCGAGCTCCAGGCCAACCCTTTCTACGACCGCTACCGCGACAAGATCCAGCTGCCGCAG GTCAGACCCAGCTGCTTTTGAGTCCCGCCTGGAGAAACGCAGTGAATTTCGGAAGCAGCCAGTGGGGCATTCCAG GCAAGGTGATTTTATCAAATGTGTGGAACAGAAGACAGATGCCTTGGGGAAACAGTCTGTGAACAGAGGATTCAC TAAGGACAAGACTCTCAGTTCAATCTTTAACATTGAGATGGTAAAAGAAAAAACTGCAGAAGAAATAAAACAGAT TTGGCAGCAATATTTTGCAGCAAAAGATACAGTCTACGCAGTTATTCCTGCAGAAAAGTTTGATTTGATCTGGAA CCGGGCTCAGTCCTGTCCAACATTTCTATGTGCTCTGCCAAGAAGGGAAGGTTATGAGTTTTTTGTAGGACAATG TTTATATCACTATCCTGAACTTAAGGAAGAAAAGGGCATAGTGCTGATGACTGCAGAAATGGATTCCACATTTCT GAATGTTGCTGAGGCACAGTGCATCGCCAACCAAGTTCAGCTCTTCTACGCTACTGATCGGAAAGAGACCTACGG ACTTGGAGCAGAACTGAAATGTGCCCAGAACCAAAATAAGACT<u>TAG</u>AACTGTACAGGTTGGCCCTTCACCTAGTT GACTCAGCCCTCGATAGTCTAGAGCCCACCCCCTCCTCAGGAACTCAAGAGCTCAGCATTTATAATGAGCAGTTG GTAATGAGTTGCCCTATGTGCTTGTCGCAAGCAGTCACAGAGATGAGCCCTATTACTTGATATTCAGGAACAAAG GTACCTGAACATTCTGATAATTATCTCAGCATACTTGAGGTTTCCTTTTTTAAGTGTTCGAGGTTATAACAAGAG ACAGCCAAGGACCTACAAGACAGTTGACTTGATTTTGCACAGTGTAACAGCGCAGTTGCATTCTGGCCACTTTGA CCTTATAGCTCCCAAATGATGAGTTTGTCATCTTTATGAACTCATGACAGGATAATAAGCTTGAAGACCTGCTGT AGTTAGATATGGGCTTTAATCCTTCCCAGGCACCAGTCAGCTGAACAAAAGCATAAGCCAAACATCCTGTTTAAA CTGTAGAATAACCAGATATTCCCATCAGGTTAAAGACTTCATCTAGATGATGCCCCCCAGAGATGCCTTTAGTGT AAGTAGCTGGGCTTGGGGTATCAGCAAATTTCAGGTATAGTTAGATAAACAGGTACAGGGCCTGCATACTATTAAA ATAAATAAAATTCTTTTGTAAGGAG

242/6881 FIGURE 227

MAAVVVAAAGGAGPAVLQVAGLYRGLCAVRSRALGLGLVSPAQLRVFPVRPGSGRPEGGADSSGVGAEAELQANP FYDRYRDKIQLLRRSDPAAFESRLEKRSEFRKQPVGHSRQGDFIKCVEQKTDALGKQSVNRGFTKDKTLSSIFNI EMVKEKTAEEIKQIWQQYFAAKDTVYAVIPAEKFDLIWNRAQSCPTFLCALPRREGYEFFVGQWTGTELHFTALI NIQTRGEAAASQLILYHYPELKEEKGIVLMTAEMDSTFLNVAEAQCIANQVQLFYATDRKETYGLVETFNLRPNE FKYMSVIAELEOSGLGAELKCAQNQNKT

243/6881 FIGURE 228

ACCTGCCCTCATCCTGGCCCGCGACTGTAAGACCGGACCCACATCCAGACCAATCTTCCTGTCCGGCTGCTGCGA CGCGGTCCGCAGGTTGCAGGCGGGCGGCCGGGGCGCCTGAAGGTTACCGAGTGCATGACGGCCTCAGTTCCCGCG GTGGCGGCGACGGTCGCAGGAGGTGCCGTCTCCCAGGTGCGCGCTTCGCTCCCGGAGCCGCGGAACTCGGT CGCGCCATGGCGTCCAACATGGACCGGGAGATGATCCTGGCGGATTTTCAGGCATGTACTGGCATTGAAAACATT GACGAAGCTATTACATTGCTTGAACAAAATAATTGGGACTTAGTGGCAGCTATCAATGGTGTAATACCACAGGAA AATGGCATTCTACAAAGTGAATATGGAGGTGAGACCATACCAGGACCTGCATTTAATCCAGCAAGTCATCCAGCT TCAGCTCCTACTTCCTCTTCTTCAGCGTTTCGACCTGTAATGCCATCCAGGCAGATTGTAGAAAGGCAACCT CGGATGCTGGACTTCAGGGTTGAATACAGAGACAGAAATGTTGATGTGGTACTTGAAGACACCTGTACTGTTGGA GAGATTAAACAGATTCTAGAAAATGAACTTCAGATACCTGTGTCCAAAATGCTGTTAAAAGGCTGGAAGACGGGA GATGTGGAAGACAGTACGGTCCTAAAATCTCTACACTTGCCAAAAAACAACAGTCTTTATGTCCTTACACCAGAT TTGCCACCACCTTCATCATCTAGTCATGCTGGTGCCCTGCAGGAGTCATTAAATCAAAACTTCATGCTGATCATC ACCCACCGAGAAGTCCAGCGGGAGTACAACCTGAACTTCTCAGGAAGCAGTACTATTCAAGAGGTAAAGAGAAAT GTGTATGACCTTACAAGTATCCCCGTTCGCCACCAATTATGGGAGGGCTGGCCAACTTCTGCTACAGACGACTCA ATGTGTCTTGCTGAATCAGGGCTCTCTTATCCCTGCCATCGACTTACAGTGGGAAGAAGATCTTCACCTGCACAG ACCCGGGAACAGTCGGAAGAACAAATCACCGATGTTCATATGGTTAGTGATAGCGATGGAGATGACTTTGAAGAT GCTACAGAATTTGGGGTGGATGATGGAGAAGTATTTGGCATGGCGTCATCTGCCTTGAGAAAATCTCCAATGATG CCAGAAAACGCAGAAAATGAAGGAGATGCCTTATTACAATTTACAGCAGAGTTTTCTTCAAGATATGGTGATTGC CATCCTGTATTTTTTTTTTGGCTCATTAGAAGCTGCTTTTCAAGAGGCCCTTCTATGTGAAAGCCCGAGATAGAAAG CTTCTTGCTATCTACCTCCACCATGATGAAAGTGTGTTAACCAACGTGTTCTGCTCACAAATGCTTTGTGCTGAA TCCATTGTTTCTTATCTGAGTCAAAATTTTATAACCTGGGCTTGGGATCTGACAAAGGACTCCAACAGAGCAAGA TTTCTCACTATGTGCAATAGACACTTTGGCAGTGTTGTGGCACAAACCATTCGGACTCAAAAAAACGGATCAGTTT CCGCTTTTCCTGATTATTATGGGAAAGCGATCATCTAATGAAGTGTTGAATGTGATACAAGGGAACACAACAGTA GATGAGTTAATGATGAGACTCATGGCTGCAATGGAGATCTTCACAGCCCAACAACAGGAAGATATAAAGGACGAG GCAAAGAGGGAAGCTCACGAGAGAGAGAGGCAGAACAGTTTCGTTTGGAGCAGATTCGCAAAGAACAAGAAGA GAACGTGAGGCCATCCGGCTGTCCTTAGAGCAAGCCCTGCCTCCTGAGCCAAAGGAAGAAATGCTGAGCCTGTG AGCAAACTGCGGATCCGGACCCCCAGTGGCGAGTTCTTGGAGCGGCGTTTCCTGGCCAGCAACAAGCTCCAGATT GTCTTTGATTTTGTAGCTTCCAAAGGATTTCCATGGGATGAGTACAAGTTACTGAGCACCTTTCCTAGGAGAGAC GTAACTCAACTGGACCCAAATAAATCATTATTGGAGGTAAAGTTGTTCCCTCAAGAAACCCTTTTCCTTGAAGCA AAAGAGTAAACACGGCCCAGCGGTGGAACCAGCCATTCCTTGACAAGCCAGCAGCCTGCGTCAGGAGAAGGGCTC CTCGCCAACCCCACACGCTCGTCTCACTCAATTCAATGTCACACTTCTGCCTCTTGCAAAATTGCTGGAAAA AGTAATAATAAATATAGCTACTTAAAAAAAAAAAAAA

244/6881 FIGURE 229

TCTTTTCAAAAAAAGCTGATGAGGTCGGAAAAAAGGGAGAAGAAACCGGCACCCTCTCTGAGAGGCAACAGAAGC GCCTGTAGGGGTGAAAGGAGCAGGGACCGGCGATCTAGGGGGGGATCAGCTACAAAAGAAACTGTCACTGGGAGC GCAAAGGGGCACAGGCCGGGGACCGCGAGAGGTGGCAAAGTGGCACCGGGCGCCGAGGCTGCTGAGCGCTCGCCG AGACGGCGACCGGACTGCCCCGGAACTGCGGCGACTCTCCCTACTCAGAACTTGGCCTACGTTTCCCAGGA GAGTCCCGGGACCTGGCGGGGCCGCATGACGGGCTTCTCGGGGGCCCGCCGCCACGCCCGGCAGCCTCCGGAGAC TTCCTGAGCGGCATTAGCCCACGGCTTGGCCCGGACGCGACCAAAGGCTCTTCTGGAGAAGCCCAGAGCACTGGG CAATCGTTACGACCTGTAACTTGAGGGCCACCGAACTGCTACTCCCGTTCGCCTTTGGCGATCATCTTTTAACCC TCCGGAGCACGTCAGCATCCAGCCACCGCGGCGCTCTCCCAGCAGCGGGGACCCAGGACTATCCCTTCGGCGAG ACGGATGGAAACCGAGCCCCCTGGAGGACCTGCCCCTGCAGTTCTGCCTCACACGGCTCAAGTCACCACCGTGAA ${\tt CAAGGGACCCTAAAGA} {\color{red} {\bf ATG}} {\tt GCCGAGCCTTGGGGGGAACGAGTTGGCGTCCGCAGCTGCCAGGGGGGACCTAGAGCA}$ ACTTACTAGTTTGTTGCAAAATAATGTAAACGTCAATGCACAAAATGGATTTGGAAGGACTGCGCTGCAGGTTAT GAAACTTGGAAATCCCGAGATTGCCAGGAGACTGCTACTTAGAGGTGCTAATCCCGATTTGAAAGACCGAACTGG TTTCGCTGTCATTCATGATGCGGCCAGAGCAGGTTTCCTGGACACTTTACAGACTTTGCTGGAGTTTCAAGCTGA TGTTAACATCGAGGATAATGAAGGGAACCTGCCCTTGCACTTGGCTGCCAAAGAAGGCCCACCTCCGGGTGGTGGA GTTCCTGGTGAAGCACACGGCCAGCAATGTGGGGCATCGGAACCATAAGGGGGACACCGCCTGTGATTTGGCCAG GCTCTATGGGAGGAATGAGGTTGTTAGCCTGATGCAGGCAAACGGGGCTGGGGGAGCCACAAATCTTCAA<u>TAA</u>AC GTGGGGAGGGCTCCCCCACGTTGCCTCTACTTTATCAATTAACTGAGTAGCTCTCCTGACTTTTAATGTCATTTG TTAAAATACAGTTCTGTCATATGTTAAGCAGCTAAATTTTCTGAAACTGCATAAGTGAAAATCTTACAACAGGCT TATGAATATATTTAAGCAACATCTTTTTAACCTGCAAAATCTGTTCTAACATGTAATTGCAGATAACTTTGACTT TCTTCTGAATATTTTATCTTTCCTTGGCTTTTCCCTTGCTTCCCCTTTTGCCAATCTCAACACCCAAGTTGAAGA AAAA

245/6881 FIGURE 230

 ${\tt MAEPWGNELASAAARGDLEQLTSLLQNNVNVNAQNGFGRTALQVMKLGNPEIARRLLLRGANPDLKDRTGFAVIH DAARAGFLDTLQTLLEFQADVNIEDNEGNLPLHLAAKEGHLRVVEFLVKHTASNVGHRNHKGDTACDLARLYGRN EVVSLMQANGAGGATNLQ$

246/6881 FIGURE 231

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MGNCGGFRGGFGSGIRGRGRSRRRGRGRGRGRGRGGKAEDKEWMPVTKLGCLVKDMKIKSLEEIYLFSLPIKESEI IDFFLGASLKDEVLKIMPVQTQTRAGQRTRFKAFVAIGDYNGHVGLGVKCSKEVATAIHGAIILAKLSIVPVRRG YWGNKIGKPHTVPCKVTGRCGSALVHLIPVPRGTGIVSAPVPKKLLMMAGIDDCCTSAWGCTATLGNFAKATFDA ISKTYSYLTPDLWKETVFTKSPDQEFTDHLIKAHARVSVQRTQAPAVATT

248/6881 FIGURE 233

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MSKSESLKEPEQLQKLLTGGLSIEATNESLRSHFEQWGTLTDCVVLRDPNTKCSRGFGFVTYATVEEVDAATNAR PHKVDGRVVETKRAVSREDSQRPGAHLTVKKFGKMEVIEIMTDHGSGKKRDFAFVTFDDHDSVDKTVIQKYHIVN GHNCEVRKALSKQEMASASSSQRGRTGSLMPKAQCLAFEPSMTGSQLSCKAMLLTAYDCLLFCACQVFHLTPLLS LSKPIQSSGEL

250/6881 FIGURE 235

CGGTCCCGCACTGGTGCAGCC<u>ATG</u>TCCTCTTCCCCGTGGGAGCCTGCGACCCTGCGCCGGGTGTTCGTGGTGGGG GTTGGCATGACCAAGTTTGTGAAGCCTGGAGCTGAGAATTCAAGAGACTACCCTGACTTGGCAGAAGAAGCAGGC AAGAAGGCTTTAGCTGATGCACAGATCCCTTATTCAGCAGTGGACCAGGCATGTGTTGGCTATGTTTTTGGTGAC TCTACCTGTGGGCAGAGGGCTATCTATCACAGTTTGGGAATGACTGGAATTCCTATAATCAATGTCAACAATAAC TGTGCTACTGGTTCTACTGCTTTGTTTATGGCCCGCCAGCTGATTCAGGGTGGTGTGGCAGAATGTGTCTTGGCT CTTGGGTTTGAGAAGATGAGTAAGGGAAGCCTTGGAATAAAATTTTCAGATAGAACCATTCCCACTGATAAGCAT GTTGACCTCCTGATCAATAAGTATGGATTGTCTGCTCACCCAGTTGCTCCTCAGATGTTTGGGTATGCTGGAAAA AATAACCCGTATTCCCAGTTCCAAGATGAATACAGTTTAGATGAAGTGATGGCATCTAAAGAAGTTTTTGATTTT TTGACTATCTTACAATGTTGTCCCACTTCAGATGGTGCTGCAGCAGCAATTTTGGCCAGTGAAGCATTTGTACAG AAGTATGGCCTGCAATCCAAAGCTGTGGAAATTTTGGCACAAGAAATGATGACTGATTTGCCAAGCTCGTTTGAA GAAAAAGCATTATTAAAATGGTTGGCTTTGATATGAGTAAAGAAGCTGCAAGAAAATGCTATGAGAAATCTGGC CTGACACCAAATGATATTGACGTAATAGAACTTCACGATTGCTTTTCTACCAACGAACTCCTGACTTATGAAGCA CTCGGACTCTGTCCAGAAGGACAAGGTGCAACGCTGGTTGATAGAGGAGATAATACATATGGAGGAAAGTGGGTC ATAAATCCTAGTGGTGGACTGATTTCAAAGGGACACCCACTAGGCGCTACAGGTCTTGCTCAGTGTGCAGAACTC TGCTGGCAGCTGAGAGGGGAAGCCGGAAAGAGGCAAGTTCCTGGTGCAAAGGTGGCTCTGCAGCATAATTTAGGC ATTGGAGGAGCTGTGGTTGTAACACTCTACAAGATGGGTTTTCCGGAAGCCGCCAGTTCTTTTAGAACTCATCAA ATTGAAGCTGTTCCAACCAGCTCTGCAAGTGATGGATTTAAGGCAAATCTTGTTTTTAAGGAGAATGAAGAAA CTTGAAGAGGAAGGGGAACAGTTTGTGAAGAAAATCGGTGGTATTTTTGCCTTCAAGGTGAAAGATGGCCCTGGG GGTAAAGAGGCCACCTGGGTGGTGGATGTGAAGAATGGCAAAGGATCAGTGCTTCCTAACTCAGATAAGAAGGCT GACTGCACAATCACAATGGCTGACTCAGACTTCCTGGCTTTAATGACTGGTAAAATGAATCCTCAGTCGGCCTTC TTTCAAGGCAAATTGAAAATCACTGGCAACATGGGTCTCGCTATGAAGTTACAAAATCTTCAGCTTCAGCCAGGC AACGCTAAGCTCTGAAGAACTCCCTTTGGCTACTTTTGAAAATCAAGATGAGATATATAGATATATACCATACA TTTTATTGTCAGAATTTAGACTGAAACTACACATTGGCAAATAGCGTGGATAGGATTTGTTTCTTAATGGGTGTG ACCAATCCTGTTTTTCCTATGCTCTGGGTGAATAGAGCCTGATGGTATACTACTGCTTTGCGGAATTGCATACAA CTGTGCATTACAAAGTTAATATGGTAATTATGGTCTGGGGTAAAATTGAGTTTCAGAATAAAATTAGGAACAGTA AAATCCAAAGAACTATGTAAACAAAAAAGCTTTTGTTTTGCTTACAAAGTATATTTAAGGATTATTCTGCTGAAG ATTCAGTTTAAGAGTTTTCCTTGGGAGAACTAAGTAAGAAACACAATGCCAACAGCTGGCCAGTAATTAGTGTTG TGCACTTCATGTCATTAATCAATTTCTCAATAGTTCTTAAAATTAGTGAGATTAAAAATCTAAAAATTTTGCATT TCATGCTATCAGAAACAGTATTTTCTTCCCAAATCAAAATAAAAGAAATATGATCAGAGCTTGAACACAGGCTTA TTTTTAAAATAAAAATATTTTTAACATGGGTTTCCTTATTGAAAAATCAGTGTATTAGTCATAAAACACCATCAT TAAGAATAATTGAACAATAAAGTTTGCTTTCAGATGCAGTTTTCAAATTATAATCTCATTTCAATTTATAACGTT CTCAGTCCTTTGTTATAATTTTCCTTTTTCATGTAAGTTTAATTATCTGCATTTATCTTTTTTCCTAGTTTTTCT AATACTAATGTTATTTCTTAAAATTCAGTGAGATATAGGATAAAATAATGCTTTGAGAAGAATGTTTAATAGAAA ATTAAAATAACTTTTTCTGGCA

251/6881 FIGURE 236

MSSSPWEPATLRRVFVVGVGMTKFVKPGAENSRDYPDLAEEAGKKALADAQIPYSAVDQACVGYVFGDSTCGQRA
IYHSLGMTGIPIINVNNNCATGSTALFMARQLIQGGVAECVLALGFEKMSKGSLGIKFSDRTIPTDKHVDLLINK
YGLSAHPVAPQMFGYAGKEHMEKYGTKIEHFAKIGWKNHKHSVNNPYSQFQDEYSLDEVMASKEVFDFLTILQCC
PTSDGAAAAILASEAFVQKYGLQSKAVEILAQEMMTDLPSSFEEKSIIKMVGFDMSKEAARKCYEKSGLTPNDID
VIELHDCFSTNELLTYEALGLCPEGQGATLVDRGDNTYGGKWVINPSGGLISKGHPLGATGLAQCAELCWQLRGE
AGKRQVPGAKVALQHNLGIGGAVVVTLYKMGFPEAASSFRTHQIEAVPTSSASDGFKANLVFKEIEKKLEEEGEQ
FVKKIGGIFAFKVKDGPGGKEATWVVDVKNGKGSVLPNSDKKADCTITMADSDFLALMTGKMNPQSAFFQGKLKI
TGNMGLAMKLQNLQLQPGNAKL

252/6881 FIGURE 237

 ${\tt GGCCCTGCGCGGCAACATGGCGGGGTCCAGGTGGAGGTCTTGAGGCTATCAGATCGGT} \underline{{\tt ATG}} {\tt GCATTGGCGTCC}$ GGGCCCGCAAGGCGGGCGCTAGCTGGCTCCGGGCAGCTCGGCCTTGGGGGCCTCGGGGCCCCGAGACGCGGGGCG TATGAGTGGGGCGTGCGCTCCACGCGGAAGTCGGAGCCTCCTCCCCTGGATAGGGTGTACGAGATCCCTGGACTG GGCTACAAGGACCCAAGGTTCTACCGCTCGCCCCCTCTTCACGAGCATCCGCTGTACAAAGACCAGGCCTGCTAT ATCTTTCACCACCGTTGCCGCCTTCTCGAGGGTGTAAAGCAGGCCCTCTGGCTCACCAAGACCAAGTTAATAGAA GGCCTTCCCGAGAAAGTGCTTAGCCTTGTTGATGATCCAAGGAACCACATAGAGAACCAAGACGAGTGCGTTCTG GTGGACAACCTAATACAGCTGTGTAAATCTCAGATTCTCAAGCATCCTTCTCTGGCCAGGAGGATCTGTGTCCAA AACTCCACGTTTTCTGCTACCTGGAACCGAGAGTCTCTTCTCCTTCAAGTCCGTGGTTCTGGTGGAGCCCGACTG AGCACTAAGGATCCTCTGCCCACCATCGCCTCCAGAGAGGAGATTGAAGCTACTAAGAATCATGTTCTAGAGACC TTCTACCCCATATCACCCATCATCGATCTTCATGAATGCAATATTTATGATGTGAAAAATGACACAGGATTCCAG CCAGATCAGCTGCGGGCCAAGATGATCCTGTTTGCTTTTGGCAGTGCCCTGGCTCAGGCCCGGCTCCTCTATGGG AATGATGCCAAGGTCTTGGAGCAGCCCGTGGTGGTGCAGAGCGTGGGCACGGATGGACGTGTCTTCCATTTCCTA GTGTTTCAACTGAATACCACAGACCTGGACTGTAACGAGGGTGTCAAGAATTTGGCCTGGGTGGACTCAGACCAG CTCCTCTATCAGCATTTTTGGTGTCTCCCAGTGATCAAAAAGAGAGTGGTTGTGGAACCTGTTGGGCCAGTTGGT $\tt TTCAAGCCAGAGACATTCAGAAAGTTTTTAGCTCTATATTTGCATGGTGCTGCG\underline{TGA}_{\tt GCGGAGGACCCCTCTGAA}$ TCCTGAAACCCCTCTTGCCTCTTCCACGGAAGAGGGCCTGGGCCCCGTGGAGCCTCAGTGCCCGTTTGGCCTG CTGCTCTCGCTGACAATAAAGAGCCCTTGCGTTGC

253/6881 FIGURE 238

MALASGPARRALAGSGQLGLGGFGAPRRGAYEWGVRSTRKSEPPPLDRVYEIPGLEPITFAGKMHFVPWLARPIF PPWDRGYKDPRFYRSPPLHEHPLYKDQACYIFHHRCRLLEGVKQALWLTKTKLIEGLPEKVLSLVDDPRNHIENQ DECVLNVISHARLWQTTEEIPKRETYCPVIVDNLIQLCKSQILKHPSLARRICVQNSTFSATWNRESLLLQVRGS GGARLSTKDPLPTIASREEIEATKNHVLETFYPISPIIDLHECNIYDVKNDTGFQEGYPYPYPHTLYLLDKANLR PHRLQPDQLRAKMILFAFGSALAQARLLYGNDAKVLEQPVVVQSVGTDGRVFHFLVFQLNTTDLDCNEGVKNLAW VDSDQLLYQHFWCLPVIKKRVVVEPVGPVGFKPETFRKFLALYLHGAA

254/6881 FIGURE 239

AGCCGGAGCGGTAGCGGCGGCGGCGGCGGCGGCGAGGCTCGGCGCCCTCTTCCCTGCAAACCATGTTTGCCA ${\tt AAGGCAAAGGCTCGGCGGGCCCCTCGGATGGGCAGGCTCGGGAAAAGTTAGCTTTATACGTCTACGAATATTTAC}$ AACCGCCTGGGTTTTTGCACTCGTGGTGGTGTTATTTTGGGACCTTTACTGTGCAGCTCCTGAAAGGAGAGACA CTTGTGAACATTCAAGTGAAGCAAAAGCCTTTCATGATTATAGTGCAGCAGCTGCCCCGAGCCCCGTGCTTGGCA CCTCGCCGCACGCCACCCTCCACCTCACAATCCTAGCAGCATGATGGGACCCCACAGTCAGCCTCCGGGAGGAG TTCCTGGGACACAGCCATTGCTGCCCAATTCTATGGATCCCACACGACAACAAGGCCACCCCAACATGGGAGGAT CAATGCAGAGAATGAACCCTCCCCGAGGCATGGGGCCCATGGGTCCCGGCCCACAGAATTACGGCAGCGGCATGA GACCACCACCCAACTCCCTCGGCCCCGCCATGCCCGGGATTAACATGGGCCCGGGAGCTGGCAGACCCTGGCCCA ATCCTAACAGTGCTAACTCAATTCCATACTCCTCCTCATCACCTGGTACCTATGTGGGGACCCCTGGTGGTGGCG GTCCTCCAGGAACACCCATTATGCCCAGTCCCGCAGATTCAACAAATTCCAGTGACAACATCTACACAATGATTA ATCCAGTGCCGCCTGGAGGCAGCCGGTCCAACTTCCCGATGGGTCCGGCTCGGACGGTCCGATGGCCGCCATGG GTGGCATGGAGCCACACACATGAATGGATCATTAGGGTCAGGCGACATAGACGGACTTCCAAAAAATTCTCCTA ACAACATAAGTGGCATTAGCAATCCTCCAGGCACCCCTCGAGATGACGGCGAGCTAGGAGGGAACTTCCTCCACT ${\tt CAGGCATTGCAGGCGGGAAGATGCCAGAAATTATGCAAGAAGTGAGGTGTCATTATCCAGGAGCTGGTGGGGAGG}$ GCATCTCCCTGCTCCCCTCAACCCCCTCCCACCCCATCCACCTTTCCCAATTTTAGTTTCATGCAA

255/6881 FIGURE 240

MFAKGKGSAVPSDGQAREKLALYVYEYLLHVGAQKSAQTFLSEIRWEKNITLGEPPGFLHSWWCVFWDLYCAAPE
RRDTCEHSSEAKAFHDYSAAAAPSPVLGNIPPNDGMPGGPIPPGFFQGPPGSQPSPHAQPPPHNPSSMMGPHSQP
PGGVPGTQPLLPNSMDPTRQQGHPNMGGSMQRMNPPRGMGPMGPGPQNYGSGMRPPPNSLGPAMPGINMGPGAGR
PWPNPNSANSIPYSSSSPGTYVGPPGGGGPPGTPIMPSPADSTNSSDNIYTMINPVPPGGSRSNFPMGPGSDGPM
GGMGGMEPHHMNGSLGSGDIDGLPKNSPNNISGISNPPGTPRDDGELGGNFLHSFQNDNYSPSMTMSV

256/6881 FIGURE 241

 $\verb|CCCGAGAGCCCCCCGCGCGCCCCCCGCGACTGGGGCGCGCTGTTGCTCCACAAGGCCCAGATCCTGGCGCTGGCA|\\$ GAAGACAAATCTGACCTTGAAAACAGTGTGATGCAGAAGAAAATAAAAATCCCCAAGCTTTCTCTTAATCATGTA GAAGAAGATGGAGAGGTTAAAGATTATGGGGAAGAAGATTTACAGCTTAGACACATCAAGGATTGTCTGGGGAAA TATTGATCTGCAGTCCAAGAAAATCCCAGCTGCCCTTGCCTGAACTGATTCTCGTTGTCCTACACAGAGACCTGA GGGGCGGAAGCCGAAGTGGCGCACAAGAGCATCGAGGCAGTGGTGGCTCGGCTAGAGAAGCAGAACGGCCT ${\tt GAGCCTGGGCCATAGCACGTGTCCGGAAGAGGTCTTCGTGGAGGCCTCGCCAGGCACAGAGGAC{\color{red} {\bf ATC} {\bf GACAGTCT} }$ AGAAGATGCTGTGGTGCCCCGGGCTCTGTATGAGGAGCTGCTGCGCAACTACCAGCAGCAACAGGAAGAGATGCG ACTTGTGTCTGAAATGAAGGAGCTCCGTGACCTTAACCGGAGGCTCCAGGACGTGCTCCTGAGGCTTGGCAG $\tt CGGTCCCGCCATTGATCTGGAAAAGTAAAGTCAGAATGTCTCGAGCCCGAGCCGGAGTTACGGAGCACTTTCAG$ TGAGGAAGCAAATACGTCGTCCTATTACCCCGCTCCTGCGCCTGTCATGGACAAGTATATCCTAGACAATGGCAA GGTCCATCTGGGAAGCGGGATTTGGGTTGATGAGGAGAAATGGCACCAGCTACAAGTAACCCAAGGAGATTCCAA GTACACGAAGAACTTGGCAGTTATGATTTGGGGAACAGATGTTCTGAAAAACAGAAGCGTCACAGGCGTCGCCAC AAAAAAAAGAAGATGCAGTCCCTAAACCACCCCTCTCGCCTCGCAAACTAAGCATCGTCAGAGAGTGTTTGTA TGACAGAATAGCACAAGAAACTGTGGATGAAACTGAAATTGCACAGAGACTCTCCAAAGTCAACAAGTACATCTG TGAAAAATCATGGATATCAATAAATCCTGTAAAAATGAAGAACGAAGGGAAGCAAAATACAATTTGCAA<u>TAA</u>AC TTTGGATTTTTCAT

257/6881 FIGURE 242

MDSLEDAVVPRALYEELLRNYQQQQEEMRHLQQELERTRRQLVQQAKKLKEYGALVSEMKELRDLNRRLQDVLLL RLGSGPAIDLEKVKSECLEPEPELRSTFSEEANTSSYYPAPAPVMDKYILDNGKVHLGSGIWVDEEKWHQLQVTQ GDSKYTKNLAVMIWGTDVLKNRSVTGVATKKKKDAVPKPPLSPRKLSIVRECLYDRIAQETVDETEIAQRLSKVN KYICEKIMDINKSCKNEERREAKYNLQ

258/6881 FIGURE 243

CCTTTCGTTGCCTGATCGCCGCCATCATGGGTCGTATGCGTGCTCCTGAGAAGGGCCTGTCCCAGTCGGCTTTAC
CCTATCGACGCAGCTTCCCCACTTGGTTGAAGTTGACATCTGACGACGTGAAGGAGCAGATTTACAAACTGGCCA
AGAAGGGCCTTACTCCTTCACAGATCGGTGTAATCGTGAGAGAATCACATGGTGTTGCACAAGTACGTTTTGTGA
CAGGCAATCTCTACCATTTAATTAAGAAAGCAGTTGCTGTTCAAAGCATCTTGAGAGGAACAGAAAGGATAAGGA
TGCTAAATTCCATCTGATACTGATAGAGAGCCAGATTCACCGTTTG

259/6881 FIGURE 244

260/6881 FIGURE 245

AGAAGATGCTTCAAATTCAACCCGAGAAGGATATCATTGTAGAGTTTATCAAAAATGGAGATTTCAAGTATGTCC ATGACTATCGAAAAATCAAGAGCCAGAACCGAAATGGGGGAGTTTGAATTGATGCATGTTGATGAGTTTATTGATG AACTATTGCACAGTGAGAGAGTCTGTGATATCATTCTGCCCCGACTACAGAAACGCTATGTATTAGAGGAAGCTG AGCAACTGGAGCCTCGAGTTAGTGCTCTGGAAGAGGACATGGATGATGTGGAGTCCAGTGAAGAGGAAGAAGAGG AGGATGAGAAGTTGGAAAGAGTGCCATCACCTGATCACCGCGGAGAAGCTACCGAGACTTGGACAAGCCCCGTC GCTCTCCCACACTGCGCTACAGGAGGAGTAGGAGCCGGTCTCCCAGAAGGCGGAGTCGATCTCCCAAAAGGAGAA GCCCCTCCCCTCGCCGAGAAAGGCATCGGAGCAAGAGTCCAAGACGTCACCGCAGCAGGTCCCGAGATCGGCGGC ACAGATCCCGTTCCAAGTCCCCAGGTCATCACCGTAGTCACAGACACAGGAGCCACTCAAAGTCTCCCGAAAGGT CTAAGAAGAGCCACAAGAAGAGCCGGAGAGGGAATGAG<u>TAA</u>TGGACTCAGTTTGGTTTTAGTCCACATGGCCTCC TGTGGATATAAGGATATCTGTATGTGGAAGGATTAAGATCTCCCCCAGGCAGCTATAAGAATATTTTAGTTTTTT TCTTATCAAGTTTCTCAACCTTTATTTTTAATGAAGGAGGTGCTGAGTTTTGTATCTTTTTAATCATAATCAACA TCAGTTTTTGACCCAACTAACCTTGACTGTATTCAAACTTATGAGAGTATAAAGGATCTGGAGGTTGGGGATATG ACTGACAAGGAAAGGCTGTGGCCACCTGATGACCCTTTCCCTTTTTATTAAACCGGACACACCTGTTTCCCATTT CGCTGTAGTTTAGTTTTTGGTTTGTTGTTGGTTGGAACTGCTTTGAGAATCCTGGGATTTGTGCTGCTGTTAT TCAAAGATCAAAGGAGTAAAACATAGTTGCTCCTAACTTTTTTCCAGCAGCAGCAAGTGGTAATAAACATGAAAA CTGGTTTGTAGCAGTTTTGAAAGAATAGAATGCATTCAAATGTAAGGCTGCTTCTGGATCATTAAAGCCAGTTTC ATCAAACAGTTCAACAGAGAGCAGCACTTAATACCCTTTATACAGCCCATTTTTTCATAGTTTCATTTGTTCTTG CCCACAAGCTTGAAATCCAGGTTAAGGTATCCAGCCTTTATCATATAAGCATTGACATTATCCAGGCCTAGTCAG TAGCAGTAGGGTAACGGGATTGAAAAAGATTTGATGGAGAGGAAAGTATCTAATATTAGTCATGGTTTTGACCTA AATTGCTAGACAGTCGTGCCATTCACAAAGTCAGAAAATACAGCAGGAAGAGACAGCTTTTAGAGGGGCAGAGAA TTAGAGGATGGTGGTAGTAATGAAAAAGATGCATTCAGTTTAACAAGTTTAATTTGAGACAGCTATGGTATAGCT AAAAACAAAAGCCCATAAAGTTGGAGATAGGGACCAGAGTTTAACATAGCGATCTAGGCCAGAATTGACAATGTT AGGCAACACCAACACAGGAAGAATAGAAGTCACCTATTGAAAACTGGAATGGCCCATTCAGAAAGACAGGAGAA CATCGATAATCAAGAGATTATTAAGATCTTTGCTAGAAGAGTTCCTTTACCTGTACTTAACTCCCTTAAAAAGAG AAAAGTGATGGAATGACTTCTGCAACTGTAGTCCCAGCAGGAACTGTGAAGACCAGCTGCCCTGCAGGATCCAGT TTTTCTTGGGAGGTTGTATCTGGTCATAAGGTAAACATTCTATATATTCTATGCCTGCTCTAGAATTGAAAGACT TCAGCAGTATTAAAGCATTTTTTAATCTT

261/6881 FIGURE 246

MLQIQPEKDIIVEFIKNGDFKYVRMLGALYMRLTGTAIDCYKYLEPLYNDYRKIKSQNRNGEFELMHVDEFIDEL LHSERVCDIILPRLQKRYVLEEAEQLEPRVSALEEDMDDVESSEEEEEEDEKLERVPSPDHRRRSYRDLDKPRRS PTLRYRRSRSRSPRRRSRSPKRRSPSPRRERHRSKSPRRHRSRSRDRRHRSRSKSPGHHRSHRHRSHSKSPERSK KSHKKSRRGNE

262/6881 FIGURE 247

GTTCGGGCCAG<u>ATG</u>GCGTCCATCATGGAAGGGCCGCTGAGCAAATGGACTAACGTGATGAAGGGCTGGCAGTACC GTTGGTTCGTGCTGCACTACAATGCAGGACTGCTCTCCTACTACACGTCCAAGGACAAAATGATGAGAGGGCTCTC GCAGAGGATGTGTTAGACTCAGAGGAGCTGTGATTGGTATAGACGATGAGGACGACAGCACCTTCACAATAACTG TTGATCAGAAAACCTTCCATTTCCAGGCCCGTGATGCTGATGAGGAGAAGAGTGGATCCATGCCTTAGAAGAAA CAATTCTTCGACATACTCTCCAGCTTCAAGGTTTGGATTCAGGATTTGTTCCTAGTGTCCAAGATTTTGATAAGA GCAAAGAAGATGAACAGAGAAAGAAAATTGAAACTCTCAAAGAGACAACAAATAGCATGGTAGAATCAATTAAAC ACTGCATTGTGTTGCTGCAGATTGCCAAAGACCAGAGTAATGCGGAGAAGCACGCAGATGGAATGATAAGTACTA TTAATCCCGTAGATGCAATATATCAACCTAGTCCTTTGGAACCTGTGATCAGCACAATGCCTTCCCAGACTGTGT TACCTCCAGAACCTGTTCAGTTGTGTAAGTCAGAGCAGCGTCCATCTTCCCTACCAGTTGGACCTGTGTTGGCTA CCTTGGGACATCATCAGACTCCTACACCAAATAGTACAGGCAGTGGCCATTCACCACCGAGTAGCAGTCTCACTT CTCCAAGCCACGTGAACTTGTCTCCAAATACAGTCCCAGAGTTCTCTTACTCCAGCAGTGAAGATGAATTTTATG ATGCTGATGAATTCCATCAAAGTGGCTCATCCCCAAAGCGCTTAATAGATTCTTCTGGATCTGCCTCAGTCCTGA CACACAGCAGCTCGGGAAATAGTCTAAAACGCCCAGATACCACAGAATCACTTAATTCTTCCTTGTCCAATGGAA CAAGTGATGCTGACCTGTTTGATTCACATGATGACAGAGATGATGATGCGGAGGCAGGGTCTGTGGAGGAGCACA AGAGCGTTATCATGCATCTCTTGTCGCAGGTTAGACTTGGAATGGATCTTACTAAGGTAGTTCTTCCAACGTTTA TTCTTGAAAGAAGATCTCTTTTAGAAATGTATGCAGACTTTTTTGCACATCCGGACCTGTTTGTGAGCATTAGTG GATCAGTTGCCAAAAAGCCATACAATCCCATTTTGGGCGAGATTTTTCAGTGTCATTGGACATTACCAAATGATA CTGAAGAGAACACAGAACTAGTTTCAGAAGGACCAGTTCCCTGGGTTTCCAAAAACAGTGTAACATTTGTGGCTG AGCAGGTTTCCCATCATCCACCCATTTCAGCCTTTTATGCTGAGTGTTTTAACAAGAAGATACAATTCAATGCTC ATATCTGGACCAAATCAAAATTCCTTGGGATGTCAATTGGGGTGCACAACATAGGGCAGGGCTGTGTCTCATGTC TAGACTATGATGAACATTACATTCTCACATTCCCCAATGGCTATGGAAGGTCTATCCTCACAGTGCCCTGGGTGG AATTAGGAGGAGAATGCAATATTAATTGTTCCAAAACAGGCTATAGTGCAAATATCATCTTCCACACTAAACCCT TCTATGGGGGCAAGAAGCACAGAATTACTGCCGAGATTTTTTCTCCAAATGACAAGAAGTCTTTTTGCTCAATTG AAGGGGAATGGAATGGTGTGTATGCAAAATATGCAACAGGGGAAAATACAGTCTTTGTAGATACCAAGAAGT TGCCTATAATCAAGAAGAAGTGAGGAAGTTGGAAGATCAGAACGAGTATGAATCCCGCAGCCTTTGGAAGGATG CAGAAGCCCGAGAAAGGAAGGAAAATTCAGTGGGAGACAAGGTTATTTCATGAAGATGGAGAATGCTGGG $\tt TTTATGATGAACCATTACTGAAACGTCTTGGTGCTGCCAAGCAT \underline{TAG} \texttt{GTTGGAAGATGCAAAGTTTATACCTGAT}$ GATCAGGGCAGTAGGCATAATTCAGCAACAAACAATCTTCCTTTGGGAGAAACCTGTTCATTCCAATCTTCTAAT TACAGTGGTTCCTATCTCAGGGATACTGGACTTTCTGACGCAGATGAACAATTAAGGGGAAAAGCTTCCCTTTTC CCTCTGTGGCAGTTACGATTTTGACTTCAGTCCTGAGAAAAACTTCAGGTTTTGAAAATCAGATGATGTCTTCTC CTTTTCCAAACACCACACGTTGAAAGCATTTATAAATCCAAGTCTGAAACTCTGCGCTCTAGTACTGCTGTTAAG TATACACACATACATATATATAAATATACCTGATGCCAGATTTTTTTCATAAATATTCTGCCTACTGTAAATA TGGGTTCCTCTGAGTTGTTTTAGAAAATTAGCGCAATGTATTAAAATCAAGTGTTAGGAAATTTCATGGTCTTAC

263/6881 FIGURE 248

MASIMEGPLSKWTNVMKGWQYRWFVLDYNAGLLSYYTSKDKMMRGSRRGCVRLRGAVIGIDDEDDSTFTITVDQK
TFHFQARDADEREKWIHALEETILRHTLQLQGLDSGFVPSVQDFDKKLTEADAYLQILIEQLKLFDDKLQNCKED
EQRKKIETLKETTNSMVESIKHCIVLLQIAKDQSNAEKHADGMISTINPVDAIYQPSPLEPVISTMPSQTVLPPE
PVQLCKSEQRPSSLPVGPVLATLGHHQTPTPNSTGSGHSPPSSSLTSPSHVNLSPNTVPEFSYSSSEDEFYDADE
FHQSGSSPKRLIDSSGSASVLTHSSSGNSLKRPDTTESLNSSLSNGTSDADLFDSHDDRDDDAEAGSVEEHKSVI
MHLLSQVRLGMDLTKVVLPTFILERRSLLEMYADFFAHPDLFVSISDQKDPKDRMVQVVKWYLSAFHAGRKGSVA
KKPYNPILGEIFQCHWTLPNDTEENTELVSEGPVPWVSKNSVTFVAEQVSHHPPISAFYAECFNKKIQFNAHIWT
KSKFLGMSIGVHNIGQGCVSCLDYDEHYILTFPNGYGRSILTVPWVELGGECNINCSKTGYSANIIFHTKPFYGG
KKHRITAEIFSPNDKKSFCSIEGEWNGVMYAKYATGENTVFVDTKKLPIIKKKVRKLEDQNEYESRSLWKDVTFN
LKIRDIDAATEAKHRLEERQRAEARERKEKEIQWETRLFHEDGECWVYDEPLLKRLGAAKH

264/6881 FIGURE 249A

CCCGGGCTGTGGGCTACAGGCGCAGAGCGGGCCAGGCGGGAGCTGGCGGCAGTGACAGGAGGCGCGAACCCGCA GCGCTTACCGCGCGCGCCCCATGGAGCCCGCCGTGTCGCTGTGCGCGCTGCTCTTCCTGCTGTGG GTGCGCCTGAAGGGGCTGGAGTTCGTGCTCATCCACCAGCGCTGGGTGTTCGTGTGCCTCTTCCTCCTGCCGCTC TCGCTTATCTTCGATATCTACTACTACGTGCGCGCCTGGGTGGTGTTCAAGCTCAGCAGCGCTCCGCGCCTGCAC GAGCAGCGCGTGCGGGACATCCAGAAGCAGGTGCGGGAATGGAAGGAGCAGGGTAGCAAGACCTTCATGTGCACG GGGCGCCCTGGCTGGCTCACTGTCTCACTACGTGTCGGGAAGTACAAGAAGACACACAAAAAACATCATGATCAAC CTGATGGACATTCTGGAAGTGGACACCAAGAAACAGATTGTCCGTGTGGAGCCCTTGGTGACCATGGGCCAGGTG ACTGCCCTGCTGACCTCCATTGGCTGGACTCTCCCCGTGTTGCCTGAGCTTGATGACCTCACAGTGGGGGGCTTG ATCATGGGCACAGGCATCGAGTCATCCTCCACAAGTACGGCCTGTTCCAACACATCTGCACTGCTTACGAGCTG TGTGGGACGCTGGGTTTCCTGGTGGCCGCTGAGATCCGCATCATCCCTGCCAAGAAGTACGTCAAGCTGCGTTTC GAGCCAGTGCGGGGCCTGGAGGCTATCTGTGCCAAGTTCACCCACGAGTCCCAGCGGCAGGAGAACCACTTCGTG GAAGGGCTGCTCTACTCCCTGGATGAGGCTGTCATTATGACAGGGGTCATGACAGATGAGGCAGAGCCCAGCAAG CTGAATAGCATTGGCAATTACTACAAGCCGTGGTTCTTTAAGCATGTGGAGAACTATCTGAAGACAAACCGAGAG GGCCTGGAGTACATTCCCTTGAGACACTACTACCACCGCCACACGCGCAGCATCTTCTGGGAGCTCCAGGACATT CTGACCCAGGGTGAGACCCTGCGCAAGCTGTACGAGCACCACCTGGTGCAGGACATGCTGGTGCCCATGAAG TGCCTGCAGCAGGCCCTGCACACCTTCCAAAACGACATCCACGTCTACCCCATCTGGCTGTGTCCGTTCATCCTG CCCAGCCAGCCAGGCCTAGTGCACCCCAAAGGAAATGAGGCAGAGCTCTACATCGACATTGGAGCATATGGGGAG CCGCGTGTGAAACACTTTGAAGCCAGGTCCTGCATGAGGCAGCTGGAGAAGTTTGTCCGCAGCGTGCATGGCTTC CAGATGCTGTATGCCGACTGCTACATGAACCGGGAGGAGTTCTGGGAGATGTTTGATGGCTCCTTGTACCACAAG CTGCGAGAGAGCTGGGTTGCCAGGACGCCTTCCCCGAGGTGTACGACAAGATCTGCAAGGCCGCCAGGCACTGA GCTGGAGCCCGCCTGGAGAGACAGGTGTGAGTGGTCAGGCATCTTCCCTTCACTCAAGCTTGGCTGCTTTC CTAGATCCACACTTTCAAAGAGAAACCCCTCCAGAACTCCCACCCTGACAGCCCAACACCCCTTCCTCCTGGCT TCCAGGGGGCAGCCCAGTGGAATGGAAAGAATGTGGGATTTGGAGTCAGACAAGCCTGAGTCCAGTTCCCCGTTT AGAACTCATTAGCTGTGTGACTCTGGGTGAGTCCCTTAACCCCTCTGAGCCCGGGTCTCTTCATTAGTTGAAAGG GATAGTAATACCTACTIGCAGGTTGTCATCTGAGTTGAGCACTGGTCACATTGAAGGTGCTGGGTAAGTGGT AGCTCTTGTTGCTTCCCGTTCAGCGTCACATCTGCAGTGGAGCCTGAAAAGGCTCCACATTAGGTCACCTGTGCA CAGCCATGGCTGGAATGATGAAGGGGATACGCTGGAGTTGCCCTGCCATCGCCTCCATCAGCCAGACGAGGTCCT CACAGGAGAAGGACAGCTCTTCCCCACCCTGGGATCTCAGGAGGGCAGCCACGGAGTGGGGAGGCCCCAGATGCG CTGTGCCAAAGCCAGGTCCGAGGCCAAAGTTCTCCCTGCCATCCTTGGTGCCGTCCTGCCCCTTCCTCATG CCTGGGCCTGCAGGCCCACCCAGCCACCACTGAGTCCACTCGGAGTGCCCTGTGTTCCTGGAGAAGGCATTCCA GGGTTGAATCTTGTCCCAGCCTCAGCCTGGGACACCTAGGTGGAGAGAGTGGTCTCCGCTCTGAATTGGATCCAG GGGACCTGGGCTCATTCTTCTTGGCTCACCAACCCTGCAGGCCTCATCTTTCCCAAAACCCACTTTGTCTTGGTG GGAGTGGGTCCGCGCTGCTCTGCAGCAGGGGCTGGGGAGTGGACAGCATCAGGTGGGAAAGTGGAGTCCACCCTC ATGTTTCTGTAGGATTCTCACCGTGGGGCTGGAAGAAAAGAGCATCGACTTGATTTCTCCAACCACTCATCCCTC TTTTTCTTCCTCCACCACCCCCACCCCAGCTGTAGTTAATTTCAGTGCCTTACAAATCCTAAGCTCAGAGAAA GTTCCATTTCCGTTCCAGAGGGAAGGGAACCTCCCTAGGTCCTTCCCTGGCTTGTTATAACGCAAAGCTTGGTTG TTTATGCAACTCTATCTTAAGAACTGCCCAGCCTCAGCTGAAAACCCGAATCTGAGAAGGAATTGCGTCATGTAA GGGAAGCTGGAATTAAGGGAGCTGAGCCAGTCATGGTTGTGGCGTGTGAGTCAGGAGACCTAGGTTTCAGCCCCT CTCTACTGTCAGCGAGCTGTGCAACGTGGGCAAGTCATTGTCCTCTGAGCTGCAGTTTCCTCATCTGTCACATCG CTACAGACAAGACCTCCCTGGAACCCTTCTGATTGTCTTAGACACTGTGGTTGCAAAACCCACGGAAAGCCTCAT TTGTGTGGAAAGTCAGAGGAAAAATGATCCAGTGGACACTTGGGGATTATCTGTCATTCAAGATCCTTCCAA CCCCAAGGTCAGCTCCCATCTCATTTCCAGAAAGGCTCATACCTGGCTTGCAGGGAAGCATCTGTCTTGTCATTC CTTAGCAGGGTCTTGTGAGGGCTGGGGGCATCCAGGCACTCAGAAGGCAAAGGAACCACCCTACCCATTTGGCCT CTGGAGGGGCAGAAGAAAGAAATAAACCTCATCCTATATTTTACAAAGCATGTGAATTCTGGCATTAGCTCTCA TAGGAGACCCATGTGCTTCCTTGCTCAGTGCAAAACTGATGATTCTACTTGCTGTAGATGAATGGTTAACACGAG

265/6881 FIGURE 249B

266/6881 FIGURE 250

GACATCATGGGCTATTTTTAGGGGTTGACTGGTAGCAGATAAGTGTTGAGCTCGGGCTGGATAAGGGCTCAGAGT CCAGCCAGGTCGGCAGTATAGTCCGAACTGCAAATCTTATTTTCTTTTCACCTTCTCTCTAACTGCCCAGAGCTA GCGCCTGTGGCTCCCGGGCTGGTGTTTCGGGAGTGTCCAGAGAGACCTGGTCTCCAGCCGCCCCCGGGAGGAGAGC CCTGCTGCCCAGGCGCTGTTGACAGCGGCGGAAAGCAGCGGTACCCACGCGCCCGCGGGGGAAGTCGGCGAGCG GCTGCAGCAGCAAAGAACTTTCCCGGCTGGGAGGACCGGAGACAAGTGGCAGAGTCCCGGAGCCAACTTTTGCAA ACGTGCGCTCAGCTTCGCTCGCACCGGTTGTTGAACTTGGGCGAGCCGAGCCGCGGCTGCCGGGCGCCCCCTCC TCCGCACTGATCCGCTCCGCGGGGAGAGCCGCTGCTCTGGGAAGTGAGTTCGCCTGCGGACTCCGAGGAACCGCT GCGCACGAAGAGCGCTCAGTGAGTGACCGCGACTTTTCAAAGCCGGGTAGCGCGCGGGGTCGACAAGTAAGAGT CGGGTGCGTGCGCTCTTAGAGAAACTTTCCCTGTCAAAGGCTCCGGGGGGGCGCGGGTGTCCCCCGCTTGCCACAG CCCTGTTGCGGCCCCGAAACTTGTGCGCGCAGCCCAAACTAACCTCACGTGAAGTGACGGACTGTTCTATGACTG CAAAGATGGAAACGACCTTCTATGACGATGCCCTCAACGCCTCGTTCCTCCCGTCCGAGAGCGGACCTTATGGCT ACAGTAACCCCAAGATCCTGAAACAGAGCATGACCCTGAACCTGGCCGACCCAGTGGGGAGCCTGAAGCCGCACC TCCGCGCCAAGAACTCGGACCTCCTCACCTCGCCCGACGTGGGGCTGCTCAAGCTGGCGTCGCCCGAGCTGGAGC GCCTGATAATCCAGTCCAGCAACGGGCACATCACCACCACGCCGACCCCACTCCTGTGCCCCAAGAACG TGACAGATGAGCAGGAGGGCTTCGCCGAGGGCTTCGTGCGCCCCTGGCCGAACTGCACAGCCAGAACACGCTGC GCAGCGGCAGCGGCGCTTCAGCGCCAGCCTGCACAGCGAGCCGCCGGTCTACGCAAACCTCAGCAACTTCAACC AGCAGCAGCCGCCGCACCACCTGCCCCAGCAGATGCCCGTGCAGCACCCGCGGCTGCAGGCCCTGAAGGAGG AGCCTCAGACAGTGCCCGAGATGCCCGGCGAGACACCGCCCCTGTCCCCCATCGACATGGAGTCCCAGGAGCGGA TCAAGGCGGAGAGGAAGCGCATGAGGAACCGCATCGCTGCCTCCAAGTGCCGAAAAAGGAAGCTGGAGAGAATCG CCCGGCTGGAGGAAAAGTGAAAACCTTGAAAGCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGG AACAGGTGGCACAGCTTAAACAGAAAGTCATGAACCACGTTAACAGTGGGTGCCAACTCATGCTAACGCAGCT GAGAACTTGACAAGTTGCGACGGAGAGAAAAAGAAGTGTCCGAGAACTAAAGCCAAGGGTATCCAAGTTGGACT TGTATGTACATATATTTTTTTAATTTGATGAAAGCTGATTACTGTCAATAAACAGCTTCATGCCTTTGTAAG AATAAACTATTGGAAAGTACTCCCCTAACCTCTTTTCTGCATCATCTGTAGATACTAGCTATCTAGGTGGAGTTG AAAGAGTTAAGAATGTCGATTAAAATCACTCTCAGTGCTTCTTACTATTAAGCAGTAAAAACTGTTCTCTATTAG GGAATTGCTTACCAAAGGATAGTGCGATGTTTCAGGAGGCTGGAGGAAGGGGGGTTGCAGTGGAGAGGGACAGCC CACTGAGAAGTCAAACATTTCAAAGTTTGGATTGTATCAAGTGGCATGTGCTGTGACCATTTATAATGTTAGTAG AAATTTTACAATAGGTGCTTATTCTCAAAGCAGGAATTGGTGGCAGATTTTACAAAAGATGTATCCTTCCAATTT GGAATCTTCTCTTTGACAATTCCTAGATAAAAAGATGGCCTTTGCTTATGAATATTTATAACAGCATTCTTGTCA CAATAAATGTATTCAAATACC

267/6881 FIGURE 251A

GTTAACAAAAGGATTAATGGGTTGCTTAAATTAGTGAGCTTCATCAGTTTTATTTTTAATTCCTTGAGATAATGA ATTTTAAAAGCAATAAATACAATGCTGTAGTTTTTGACTTCTTTTCTAAATATTTACATGGATTTACATGAAAGA ACTAAAGAGATAGTATTTGTGGAACCAATTTAAACTCTTACATGCCTTTCAGGATTTGGGAATGTATTAACACCT CCCTCACTCAGACCCAAGGATTATGTCTTTTGGGGCTCCCATCATCCTGAGCTAGAGACACGTGACAGGGGTACA CTCTCCTACAAAACCAGCCAGTTACTCAGTAAAGTGGACGATAGAAGAAAAAGAGCTGTTTGAACAAGGGCTGGC TAAATTTGGCCGAAGATGGACCAAAATTTCAAAGCTAATTGGAAGCCGCACTGTTTTACAAGTGAAGAGTTATGC AAGACAGTATTTTAAAAATAAGGTCAAATGCGGTCTGGATAAAGAAACACCAAATCAGAAGACCGGCCATAATCT TCAAGTTAAAAATGAAGATAAAGGGACAAAGGCATGGACACCATCATGTTTAAGGGGACGTGCTGATCCCAACTT GAATGCTGTAAAAATTGAAAAGTTATCTGATGATGAAGAAGTAGACATCACAGATGAGGTGGACGAGTTGTCTTC TCAAACACCCCAGAAGAATTCTAGCAGTGATCTCTTGTTAGACTTTCCTAATAGTAAAATGCATGAAACCAATCA AGGAGAATTCATTACTTCTGACAGCCAGGAAGCTCTCTTTTCTAAGTCTTCCAGGGGCTGTCTTCAAAATGAAAA GCAAGATGAAACACTTTCAAGCTCAGAAATTACACTGTGGACTGAGAAACAGAGCAATGGTGACAAAAAATCAAT TGAATTAAATGACCAGAAATTTAATGAATTGATTAAAAACTGCAACAAGCATGATGGAAGGGGAATAATAGTTGA TGCCAGGCAGTTGCCTTCTCCAGAGCCTTGTGAAATTCAGAAAAATTTGAATGATAATGAAATGCTTTTTCATTC TATCATTCAAGAAGAAGAAAACAAGCAATTCCTGAGTTTTTTGAGGGGCCCCAAGCTAAAACACCAGAACGCTA TTTGAAAATTAGAAATTATATTTTGGATCAATGGGAGATATGCAAACCAAAATACTTAAATAAGACCTCAGTACG TGCAGTAGAAGCATACCAACTTGCCCAGCGTCTGCAGTCTATGCGTACAAGGAGACGTAGGGTCCGAGACCCATG GGGAAACTGGTGTGATGCAAAGGACTTAGAAGGACAAACGTTTGAGCATCTCTCTGCTGAGGAGTTGGCAAAAAG AAGAGAAGAGGAAAAAGGCAGACCTGTTAAATCTTTAAAAGTGCCAAGACCAACAAAAAAGCTCGTTTGATCCCTT TTTAATAATGGATTTGCATGCTCATGTTTCTATGGCAGAAGTGATTGGTCTGTTAGGAGGAAGATACTCAGAAGT TGATAAAGTAGTTGAAGTCTGTGCAGCAGAACCATGTAACAGTCTGAGTACAGGACTACAGTGTGAGATGGATCC TGTATCACAAACACAGGCCTCAGAAACCTTGGCTGTTAGAGGCTTCAGTGTTATTGGATGGTATCATTCTCATCC TGCTTTTGATCCTAATCCTTCCTTACGAGATATTGACACAAGCTAAATACCAGAGTTACTTCTCCAGAGGAGG TGCAAAGTTCATTGGGATGATTGTTAGTCCCTATAATCGAAATAATCCCTTACCATATTCTCAGATTACCTGCCT GGTTATAAGTGAGGAAATTAGCCCAGATGGCTCTTATCGCTTACCATACAAATTTGAAGTACAGCAGATGTTAGA AGAACCTCAGTGGGGATTAGTATTTGAAAAGACAAGATGGATAATAGAAAAATACAGGCTCTCCCATAGCAGCGT TCTGAGCAAAGTGACCAATTGCTTTATGGCTGAAGAATTCTTGACTGAAATAGAAAATTTGTTCCTTTCCAATTA TAAAAGCAACCAAGAGAATGGAGTAACCGAAGAGAACTGTACAAAGGAATTGTTAATGTGATTATTTTAAAGTTA AGACATTTTAATCTTGACACAGTAGATCTTACTTTCAAAGTTATAAACTTGAAGTGATTGTAGTTAACATTGGCA CAGCTTTGGTATTTTCTCTATTTCACAAAATCCAAACTTTGCCACATAAATCATGTGAAAAGGAAGAGATACA **AATTTGTTTTCATATAGTGATTATCAGAGTGTTCTGCAAACCAGGGTCCACCACGGTGTTCTAGTCCTTTACTGA** GCAATGCTGTAGGCTGTGAAACTAAGCAACCTGGTCGGCTTTACTGTTGTTCTGGTTGGGGATTTGGACTATGT CTCTAAGTCATTTCTTCCCTGAACTAGTCATTTATGTTCCATTGTGGTATCTCCTATTTCATTTAAAAGCACTTC TAATATGGTTTAGAACTACTGATTAATAAATCTAACAGGAGACCAGGAGAGGCATGACAAGAAAATCTTAAAAAC AGGAAAAACCCAAAGGAGAACTAAATTACCAGTTTCTAATCATAGATACTATCTTCCATTTCATTGTATAGCA GTAGTATCATAAGATATGCCATTTTCTCAGCTATCTGAAAATTTTTAACCAATTTTACACACATAAAATAATTAG CTTCAATTGTGAGTCCACTTACATTAGTAGGTGTGATAAAACCTCATTTAACTGGAACATAGGTAATCATAACTC AAACTTTTTTCTACTGCCTACTACTAGGAGAAAGAGGCAAATGATAATAAAGCTGGAATAAATCAGAGATTTAA TTTTTAAAACAAGCCTTTCAGGACATGTTACATATTCAGCCCAGTTTCATATGCTTTCTGAATCTATAATGGAGG TCAGTGAACTTTTTTAATGTAAAGGGCCAGTTTGTAAATAATTTTGGCTTTTCAGGCCACATATGATGTCTATGA

FIGURE 251B

 ${\tt CCATTGTTAACTCACAGGCCTCATAAAACATAGGCTGTTGGCTATTATTCTCCAACCCTTGATCTAGAGAATTTT}$ AAACATTAGAATTTTGTTTACATTTGTTAAGCTTTACGTCATCTTCAAATGACACCCAAAACTCAGAATTATGAT CTGCATTTAAGCCAATTTTAAAATAAAATAAGCAGTCAATGCTGCCTCATTTATTGAAAATTCAGTAGATTTTAGT TTATTTCTTAGTAGTCAGAGAATTGATTTATAGCTATTCACCAAACATTCTTACTAACGTTTCCTTATATCTAAA TCAGATTGATTCTATATTTTGCTTTGTTATCAATAGCCAATGAAGAATAAGGAGTATTGGAAGAAGCAGTG AGTCAGCTTTAGGTGACCTGGTTCTTGTCTCAACTTTGTGATTTGGGGAGATACAGTTTACTTTCCCTGAGCCTT AATTCTTGTGTAACTGAAGTCTAACTTAACTTCTTAATGTCCTTCCAGAACTAAAATTTTATTGTTCATTCTAAT GGTAGTATTTTTCCATTTCTGTGTGCACTTAGGATAAACAGTGAAGTATAGCTTATAAAACAATTAGTTTGAG GGCTGAGAGTGTAAGAGGAACTATACCAAAAGTCAGGAAACCTGAGCTCTTACCCTAACTCTGTTACCAACTTTG CTGTGTGACCTTAATCAAAACACATAACCTGGACCCCATGCTCCTCACCAGTAAATCAAGGGCCTGAATTTIATG TCCTTTTGACCTGTTTCCTCATGATATATTGGGGAACAAATACTAAAAAGTGTTTTATACTAGCTTTCTTGATTG ACATTTCCCTATAATACTGATGAATTTGGGTGATGGAAAGTAATGGAAATTGTTAAAAGTTCTGCTCTCAAATCT GAGTCTCCTTGCCCTGTGTGCCAATGTTTAACCATATTTGCTAATCTAAGCCATATTGCGAGGATCTCAAGGATG ATACTTGTCAAGAGTTTGGGGCCTTGAGAGCACAGTTTTCAAAATAATACTTAGTATTTTCTGACTATAGAGTAC ATTTGTCTTGTAAAGTATATTTTAAAATACAGAGAAGTGTGAAGTACAAATATCTCAGTGCTACTATTTAAAAAA ACACAATTAGTATATAAATCCTTCCCCATTTTTTTGACAGTATAATTTTAGTATGTTAAACTTGGTTACTTCTTT CTCTCTTCCTCCATCATTTTCCCTGCTTCCTTTTTCTTTTGTCATATTCTTAAAACAATTTTGCAACCACAGGTA ${\tt AAGTCTAGAACTGAGGGGGCCTATGATACAGGAAGTTCAGGAGGCAGAGTCTCAAAGGAACACCTGCCTTTAATA}$ ATGTTTACAGAAGTGGAGAAAGGACTAAAGGACTTAAAGACATGCAGGTGTCTTCATCCTGATTCTGTCTTTGTT CTTCCCCAGTATTAGACTTAATCTAATTCCAAAGTAACATTCAAGAAAAGAAAAACCAGTGGAACAGGATCAGTA AGCTCAGACTCTCCATCTCCATTATTTTAGCCTTGACCATTCTTCTCTAATCCTTTTAAATTATCTTCAGTTTCC AGTTCAAGTTACATTGCTTCAGTTACAGTTTGTTTGACCCTGTATTCAGAGCTGCATTATGATTCTTGTGGGCCC TAGATAGTTTTGCCATCTTAGACCCCTTCTTCCATACAAAATTAAAAGTGATATTTTACAATTGTATCTGTATGA TAAAACATTTTTGTGGGCTTCTAAAAAACTGTGGGCCTTAGGTACTGTGCCTAATGGATAAGTTGGCATTGCCTG TATTCTGAAGGGCATCATTGGAAAAATAGCAGTCATTATTCTGTCCCCTTCTCCCACCACCACAGTCCTTGGAGA AGTCTTCAGATATTTTTGTTTTGGTCAGTCCCTAATCTGTAGTTTTGAAACTCGTGCCACACTTGAAAGGGAAAC CAGCATATAAATACAAGACCCTTCTTTCTATTATTTGTTGAAAGCTAGGCCTGTAAAATAGAGATGGACAGACCA GGGGTTGAGGTCTGTGACATGCAGACTGTAAGCACAGTCAGAACCTCTGCAGCTCTCAACCCAACAGAGGAGACT GTGGCTTCAACATGCCAACCTGAGCAGGTCTCCTCTGCATTACCTTCCTCCCATTTCTCTTCCTGGGTCCTGATG AGGTGAGCTGGAGGAACCAATAGTCAGGATGCCCTGGAATTGATGTTGCTCTGTTTTGTGCTCACAAAACAGCCA TGTAACACATGAGCACCTGAGTTGAAGCCATCCAGTCGCAAGTCAGCAGACAGCAGTTGATGGAATTCTCAGTAG AAATTCAGTAAGGGTGCCCAAATTTTATTTTTTTTTTCACCTATACTCTACCAATATATGGTATTTAGGAAAACT ACAAATTTGATCAGCATCTCTAGTTTACCAGTACTTTAATATTAGTTTTCTTACAAATTAATGTATTTTGCAATA TTTCCAGAAAATCACTGTGGGAGAATAATGTAATATACTTTAGGATATATTTCCTGACCTTTTCTTAAATGGCTT CATGTGCTATTCCCCCAAATTCTGCTTTCTCTATTTTCTTTTTTTAACCTATAATTATACTTTCTAGTATAT CAGGAAAAAATAAAAATATCCCAGGGGAGCTGTGATTATGCCAAGAGCTCTAAACAGAAGTTTGAGAAGGTAAAA ATTAAGTTGTAGTATCTGAGTTGTTTTTATTTTCTTCCTTTGGTGTTTTATGAAGGTATTCATAAGAACTTTAATT

269/6881 FIGURE 251C

TCAGGGGAAAAAATGCCTGATTTGCTATTTTTGACATTTCCTCGTCTCTTAAGAAGTCAGTTAAATATGTTTTC
ATAGTTTATATTCCTGTTTCATAGATTACTGTGAAACATGTATTTAAACCTATGAATTATAAAATAGTATTTAGA
TTCTAGCGTGAGTTAAATAGATTAGTCATATATCTTTTTAGATTTGTGGATTTGACATGTAAATTATGTGTTGTG
ATAAGTAAGTTAGTTACTAAACATATGGCATGGTTATTGATAAACTTGTTGCTATTTTTTCCAAATGCTATCAG
TGTTTGTGGACTTTTAAAAATTAGTTTGAATTTTGGAATGTTCTGTGATAAAATGTAATTTCAACTATTTTGTAC
ATTTAAATATGCCATGTTGTATATGTCTGTATTTAAAAATGTTGTAAATACCTGCATTTTAAGAATTATGGAAAGA
TTTTCCTCAAAAAATGACAGAACTCTCCATACTTAATTGTGACACATTATAAGATATCTGATTTTAAACTTTTGGA
TTTTGTTCTAAAAATTAAGTTTAAACATGCTGAAAAATCCATAAAAATAAAATTTTGAAAATAAA

270/6881 FIGURE 252

MHETNQGEFITSDSQEALFSKSSRGCLQNEKQDETLSSSEITLWTEKQSNGDKKSIELNDQKFNELIKNCNKHDG RGIIVDARQLPSPEPCEIQKNLNDNEMLFHSCQMVEESHEEEELKPPEQEIEIDRNIIQEEEKQAIPEFFEGRQA KTPERYLKIRNYILDQWEICKPKYLNKTSVRPGLKNCGDVNCIGRIHTYLELIGAINFGCEQAVYNRPQTVDKVR IRDRKDAVEAYQLAQRLQSMRTRRRRVRDPWGNWCDAKDLEGQTFEHLSAEELAKRREEEKGRPVKSLKVPRPTK SSFDPFQLIPCNFFSEEKQEPFQVKVASEALLIMDLHAHVSMAEVIGLLGGRYSEVDKVVEVCAAEPCNSLSTGL QCEMDPVSQTQASETLAVRGFSVIGWYHSHPAFDPNPSLRDIDTQAKYQSYFSRGGAKFIGMIVSPYNRNNPLPY SQITCLVISEEISPDGSYRLPYKFEVQQMLEEPQWGLVFEKTRWIIEKYRLSHSSVPMDKIFRRDSDLTCLQKLL ECMRKTLSKVTNCFMAEEFLTEIENLFLSNYKSNQENGVTEENCTKELLM

271/6881 FIGURE 253

272/6881 FIGURE 254A

GAGCTTGCGAAGGCAGCAGGAGGAGAAAACCTCTGAGCTGTTTTTGCCCAGTGTCCACAGAGGGTTAGGAGGA CCCAATGAAGGAATGACCCTGAAATGTGAACAGGGCGAAGAACTAGGCCCCAGCTCCCTGCAGAAGAAGATACATC AAAGCCCCACATGAGGATTTTTATAGCTCCACATTGGACAAGCTTCCTCTCTGAGATAGAGCCTACAGGGAAG GGACAGATTTGGGGCAAGGAGGAGTCTGAAAGAGTGGGGTACGCCGTAGTGAAAGCTGGAGTGAGAGCCTTC GTATTCGAAGGCGGGGACTCGGGCGCTGTTGGCAGCTGGCGACGCGGGGGCGAAGCCGCGGCTGGCGGCGCCTGGC CCCGTGCACCGCGGGCCGCCTCGCCAGGACTTCCGCAGCCTCGCCAAGCCTGGGGTCTGCGACAGAAAAGGAGCG GGGCTGCTCGGGCTGCCCAAAGGGTCATGGTTATTAAGGAAGAAAACACAGAATGGGCCCTTGTATGGACTCTAT TACCAAGTGCCATTGGACACGCAGGCAGTGTACTGGGAGACAGTCGTGGTGTGCTCAGAGGTATTGCCACGGCCT GAAGTTCCTCTTGGCCGCAGCTGCCCCCACTCTGCTGCAATCTTCTGGGGAGGGCTTCACCTGCCACTGCCTC CTGCATGCCAGCATCGCCTGCTGCAGACTGCAGAGCTGGGGTGCCAAAGACCAGTCCTCTCAGGGGGATGAAGAG AAAGACCCTCCGAAGAGCCACCCTTATTCTGTGGAGACCCCATATGGCTTTCATTTAGACCTGGACTTCCTCAAG TATGTGGATGACATCGAGAAGGGAAACACTATCAAAAGAATTCCTATCCACAGAAGGGCCAAGCAGCCAAATTT TCTCCCGTGGTGCCAAGGGAGGCATCACTTGGGACACAGGAGCAAAACCAGTCACCACCGCTTGGTAATGCCCCC CAGGCCTCAACAAGCAGGAGTGAGGTGAGCTACCACAGGAAGGCTCTGTTGGCAGAGGCCACCAGACAGTTGGAA GCTGCTGAGCCAGAGGATGCCGAGCTCACTTTTGGGAGTGGACGGCCCCAGCTCTTGAGAGCATCCAGCATGCCT CCCCTTCAGGGTGAAGGCAGTGTCTGTGATGGCACCTTTGAACCTGCAGAAGGATTGGCAGGTTTCCACAGCTCC CCAAATCACCTCCCTCTCCCAGGCCCTCCTTTCTCATTCCAGAATGTGCTTGTAGTTCTAGAGGACAAGGAAGAT GAACACAATGCCAGAGAAGCAGAGGTGTTGTTCACCCCTGGCTCCCCTACGCCAAGCCCGCCACCTCTGCCATCA CCCATCCTGAGAATGAGCTCTCCTGGAAGAAATCGAGCTCAACATCAGCGAGATTCCACCCCCGCCACCTGTA GAGGTGGACATGAGAAGCATTGGCATCAGGGTAACTGAGGAAAGCCTGGGCCTTGCCAGGGTGGATCCAGGCAGC AGAACTGCTCTCCAGCAGCAGGAAGAGGAAATCAAAGCTAGGGAGCAAAGAATTCGAGAGCTGGAGTTCACTGTA GACCCTGTCCATGGACTCTTGACCAGGGAGTCGTGTGATAAGGGCATTGAAGTCAACCTTCTAGGCAGCATGGAG TCTGAAAGCTGGGGGCACCGAGGAGAGGAGAATGGCCTCCTATGGGGGCCAGATGGTCATAAACAAGGGAATCAG AGCCCAGCAGAACGTGTGCTTCTGCCCCAGCTGTCACTGCCACAGGGACCCGAGCAGGTCCTTACCTCCTCTGTA CTCCCAGGGAAGGACCCCGGGAAGGCCACCAAGCTCGCCAACGGATGCCACTATTGGGCAGTATGTGAAGAAG ATCCAGGAGCTCCTGCAGGAGCAGTGGAACTGCCTGGAGCATGGGTACCCGGAGCTGGCCAGCGCCATCAAGCAG CCAGCCTCCAAGCTCAGCAGCATCCAGAGCCAGCTGCTGAGCTCCCTCAACCTGCTGCTGTCGGCCTACTCGGCC CAGGCTCACCCACCAAGGAGCCACCGGCCTCCTCCTCCTCCCGCCAGTGGAGATCTCCCCATCGACCAGCCTT AAATCCATAATGAAAAAGAAAGACTATGGCTTCCGTGCAGGAGGTAATGGGACCAAAAAGAACCTTCAGTTTGTT GGGGTTAACGGTGGGTATGAGACCACCTCAAGTGAGGAGACCAGCGGTGAGGACAGCACCCCAGAGGACTTGTCT GACAGCGAGGCAGAGAAGAAGTGTGACGGCCCAGATCACAAGCATGTCAAAGATGCCCATCTCACCTGCGAGGCT GGGCAGGCATCCCTGAGGGCACCTGCCATGCTGCCCAGGAAAGTGGGCCTGGGGAAGAAGTCCCCCACTCCAAG GCCGAGAGCCGGAAGTCGTCTAGCCCCGCCGTGGTGGCCTCCTACCTCCACGAGGTCCAGCCTCACTCCCCACAC TTCCTGAAACTGCTTGTCAACTTGGCCGATCACAACGGGAACACGGCCCTTCACTACAGCGTGTCCCACTCCAAC TTCTCCATCGTGAAGCTGCTGCTGGAGACAGGCGTCTGCAATGTGGACCATCAGAACAAAGCTGGCTACACTGCC GTAATGATCACTCCCTTGGCTTCCGCAGAGACCAATGAAGACATGGCTGTTGTCTGGAAGCTCTTAAGAGAAGGA AATGTGAACATTCAAGCTACTCAGGGAGGCCAGACTGCGCTGATGCTGGGAGTCAGCCACGACAGGGAGGACATG GTTCAAGCGCTGCTTAGCTGCCAGGCAGATGTCAATCTGCAGGACCACGATGGATCCTCGGCCCTCATGGTGGCC

273/6881 FIGURE 254B

274/6881 FIGURE 255

 ${\tt MASVQEVMGPKRTFSLLGLTVGMRPPQVRRPAVRTAPQRTCLTARQRRSVTAQITSMSKMPISPARLGRASLRAPALPRKVGLGKKSPTPRPRDINPQKNFLMHAGH}$

275/6881 FIGURE 256A

GCGGCGGCGGGAGTATCCTGGAGCTGCAGACAGTGCGGGCCTGCCCCAGTCCCGGCTGTCCTCGCCGCGACC GCCAGCGCAGCGGCGCGCTGCCTGGCCCAGGCGCACACGGAAGTGCGCTTCTCTGAAGTAGCTTTGGAAAGT AGAGAAGAAAATCCAGTTTGCTTCTTGGAGAACACTGGACAGCTGAATAAATGCAGTATCTAAATATAAAAGAGG ACTGCAATGCCATGGCTTTCTGTGCTAAAATGAGGAGCTCCAAGAAGACTGAGGTGAACCTGGAGGCCCCTGAGC CAGGGGTGGAAGTGATCTTCTATCTGTCGGACAGGGAGCCCCTCCGGCTGGGCAGTGGAGAGTACACAGCAGAGG ACACCAAGCTCTGGTATGCTCCAAATCGCACCATCACCGTTGATGACAAGATGTCCCTCCGGCTCCACTACCGGA AGAAAAATGGCTACGAGAAAAAAAAGATTCCAGATGCAACCCCTCTCCTTGATGCCAGCTCACTGGAGTATCTGT TTGCTCAGGGACAGTATGATTTGGTGAAATGCCTGGCTCCTATTCGAGACCCCAAGACCGAGCAGGATGGACATG ATATTGAGAACGAGTGTCTAGGGATGGCTGTCCTGGCCATCTCACACTATGCCATGATGAAGAAGATGCAGTTGC TTCTCACCAGGATGCGGATAAATAATGTTTTCAAGGATTTCCTAAAGGAATTTAACAACAAGACCATTTGTGACA GCAGCGTGTCCACGCATGACCTGAAGGTGAAATACTTGGCTACCTTGGAAACTTTGACAAAACATTACGGTGCTG AAATATTTGAGACTTCCATGTTACTGATTTCATCAGAAAATGAGATGAATTGGTTTCATTCGAATGACGGTGGAA ACGTTCTCTACTACGAAGTGATGGTGACTGGGAATCTTGGAATCCAGTGGAGGCATAAACCAAATGTTGTTTCTG TTGAAAAGGAAAAAATAAACTGAAGCGGAAAAAACTGGAAAATAAACACAAGAAGGATGAGGAGAAAAAACAAGA TTAACAAGCAGGACAACAAGAAAATGGAACTGAAGCTCTCTTCCCACGAGGAGGCCTTGTCCTTTGTGTCCCTGG TAGATGGCTACTTCCGGCTCACAGCAGATGCCCATCATTACCTCTGCACCGACGTGGCCCCCCGTTGATCGTCC AGGAGGGGATGTACGTGCTGAGGTGGAGCTGCACCGACTTTGACAACATCCTCATGACCGTCACCTGCTTTGAGA AGTCTGAGCAGGTGCAGGGTGCCCAGAAGCAGTTCAAGAACTTTCAGATCGAGGTGCAGAAGGGCCGCTACAGTC TGCACGGTTCGGACCGCAGCTTCCCCAGCTTGGGAGACCTCATGAGCCACCTCAAGAAGCAGATCCTGCGCACGG ATAACATCAGCTTCATGCTAAAACGCTGCTGCCAGCCCAAGCCCCGAGAAATCTCCAACCTGCTGGTGGCTACTA AGAAAGCCCAGGAGTGGCAGCCCGTCTACCCCATGAGCCAGCTGAGTTTCGATCGGATCCTCAAGAAGGATCTGG TGCAGGGCGAGCACCTTGGGAGAGGCACGAGAACACCATCTATTCTGGGACCCTGATGGATTACAAGGATGACG AAGGAACTTCTGAAGAGAAGAAGATAAAAGTGATCCTCAAAGTCTTAGACCCCAGCCACAGGGATATTTCCCTGG CCTTCTTCGAGGCAGCCAGCATGATGAGACAGGTCTCCCACAAACACATCGTGTACCTCTATGGCGTCTGTGTCC GCGACGTGGAGAATATCATGGTGGAAGAGTTTGTGGAAGGGGGTCCTCTGGATCTCTTCATGCACCGGAAAAGCG ATGTCCTTACCACACCATGGAAATTCAAAGTTGCCAAACAGCTGGCCAGTGCCCTGAGCTACTTGGAGGATAAAG TCATCAAGCTCAGTGACCCCGGCATCCCCATTACGGTGCTGTCTAGGCAAGAATGCATTGAACGAATCCCATGGA TTGCTCCTGAGTGTGTTGAGGACTCCAAGAACCTGAGTGTGGCTGCTGACAAGTGGAGCTTTGGAACCACGCTCT GGGAAATCTGCTACAATGGCGAGATCCCCTTGAAAGACAAGACGCTGATTGAGAAAGAGAGATTCTATGAAAGCC GGTGCAGGCCAGTGACACCATCATGTAAGGAGCTGGCTGACCTCATGACCCGCTGCATGAACTATGACCCCAATC AGAGGCCTTTCTTCCGAGCCATCATGAGAGACATTAATAAGCTTGAAGAGCAGAATCCAGATATTGTTTCAGAAA AAAAACCAGCAACTGAAGTGGACCCCACACATTTTGAAAAAGCGCTTCCTAAAGAGGATCCGTGACTTGGGAGAGG GCCACTTTGGGAAGGTTGAGCTCTGCAGGTATGACCCCGAAGGGGACAATACAGGGGAGCAGGTGGCTGTTAAAT CTCTGAAGCCTGAGAGTGGAGGTAACCACATAGCTGATCTGAAAAAAGGAAATCGAGATCTTAAGGAACCTCTATC ATGAGAACATTGTGAAGTACAAAGGAATCTGCACAGAAGACGGAGGAAATGGTATTAAGCTCATCATGGAATTTC TGCCTTCGGGAAGCCTTAAGGAATATCTTCCAAAGAATAAGAACAAAATAAACCTCAAACAGCAGCTAAAATATG CCGTTCAGATTTGTAAGGGGATGGACTATTTGGGTTCTCGGCAATACGTTCACCGGGACTTGGCAGCAAGAAATG TCCTTGTTGAGAGTGAACACCAAGTGAAAATTGGAGACTTCGGTTTAACCAAAGCAATTGAAACCGATAAGGAGT ATTACACCGTCAAGGATGACCGGGACAGCCCTGTGTTTTGGTATGCTCCAGAATGTTTAATGCAATCTAAATTTT ATATTGCCTCTGACGTCTGTGTTTTGGAGTCACTCTGCATGAGCTGCTGACTTACTGTGATTCAGATTCTAGTC CCATGGCTTTGTTCCTGAAAATGATAGGCCCAACCCATGGCCAGATGACAGTCACAAGACTTGTGAATACGTTAA

276/6881 FIGURE 256B

AAGAAGGAAAACGCCTGCCGTGCCCACCTAACTGTCCAGATGAGGTTTATCAACTTATGAGGAAATGCTGGGAAT TCCAACCATCCAATCGGACAAGCTTTCAGAACCTTATTGAAGGATTTGAAGCACTTTTAAAATAAGAAGCATGAA TAACATTTAAATTCCACAGATTATCAAGTCCTTCTCCTGCAACAAATGCCCAAGTCATTTTTTAAAAATTTCTAA TGAAAGAAGTTTGTGTTCTGTCCAAAAAGTCACTGAACTCATACTTCAGTACATATACATGTATAAGGCACACTG TAGTGCTTAATATGTGTAAGGACTTCCTCTTTAAATTTGGTACCAGTAACTTAGTGACACATAATGACAACCAAA ATATTTGAAAGCACTTAAGCACTCCTTGTGGAAAGAATATACCACCATTTCATCTGGCTAGTTCACCATCAC AACTGCATTACCAAAAGGGGATTTTTGAAAACGAGGAGTTGACCAAAATAATATCTGAAGATGATTGCTTTTCCC AATTTCAGTATCTATACAGTACTAGACCATGCATTCTTAAAATATTAGATACCAGGTAGTATATATTGTTTCTGT ACAAAAATGACTGTATTCTCTCACCAGTAGGACTTAAACTTTGTTTCTCCAGTGGCTTAGCTCCTGTTCCTTTGG GTGATCACTAGCACCCATTTTTGAGAAAGCTGGTTCTACATGGGGGGATAGCTGTGGAATAGATAATTTGCTGCA TGTTAATTCTCAAGAACTAAGCCTGTGCCAGTGCTTTCCTAAGCAGTATACCTTTAATCAGAACTCATTCCCAGA ACCTGGATGCTATTACACATGCTTTTAAGAAACGTCAATGTATATCCTTTTATAACTCTACCACTTTGGGGCAAG CTATTCCAGCACTGGTTTTGAATGCTGTATGCAACCAGTCTGAATACCACATACGCTGCACTGTTCTTAGAGGGT GAAAGACCCGGCTAGAGGCACTATGGACTTCAGGATCCACTAGACAGTTTTCAGTTTGGTTTGGAGGTAGCTGGGT AATCAAAAATGTTTAGTCATTGATTCAATGTGAACGATTACGGTCTTTATGACCAAGAGTCTGAAAATCTTTTTG TTATGCTGTTTAGTATTCGTTTGATATTGTTACTTTTCACCTGTTGAGCCCAAATTCAGGATTGGTTCAGTGGCA GCAATGAAGTTGCCATTTAAATTTGTTCATAGCCTACATCACCAAGGTCTCTGTGTCAAACCTGTGGCCACTCTA TATGCACTTTGTTTACTCTTTATACAAATAAATATACTAAAGACTTT

277/6881 FIGURE 257

278/6881 FIGURE 258

MFSSSAKIVKPNGEKPEEFESGISQALLELEMNSELKAQLRELNITAAKEIEVGGGRKAIIILVPVTQLKSFQKI QIRLVSELEKKFSGKHVVFIAQRRILPKPTRKSCTKNKQKRPRSSTVTAVHDAILEDLVFPSEIVGKKIRVKLDG SRLIKVHLDKAQQNNVEHKVETFSGVYKKLMGKDVNCEFPEFQS

279/6881 FIGURE 259

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280/6881 FIGURE 260

GGGGGTGGGAAGAGCTGAAGCAGGCGCTCTTGGCTCGGCGCGCCCGCTGCAATCCGTGGAGGAACGCGCCGCCG AGCCACCATCATGCCTGGGCACTTACAGGAAGGCTTCGGCTGGTCACCAACCGATTCGACCAGTTATTTGA GCCCGTGGCGCTTAAGAAGAAGAAGAATAAGACGAGTTGGAAGAAGACCTGATCAACAACTTCAGGGTGAAGGGAA AATAATTGATAGAAGACCAGAAAGGCGACCACCTCGTGAACGAAGATTCGAAAAAGCCACTTGAAGAAAAGGGTGA AGGGGGCCGTGGACGTGGAATGGGCCGAGGAGATGGATTTGATTCTCGTGGCAAACGTGAATTTGATAGGCATAG TGGAAGTGATAGATCTGGCCTGAAGCACGAGGACAAACGTGGAGGTAGCGGATCTCACAACTGGGGAACTGTCAA AGACGAATTAACTGACTTGGATCAATCAAATGTGACTGAGGAAACACCTGAAGGTGAAGAACATCATCCAGTGGC AGACACTGAAAATAAGGAGAATGAAGTTGAAGAGGTAAAAGAGGGCGCCCAAAAGAGATGACTTTGGATGAGTG GAAGGCTATTCAAAATAAGGACCGGGCAAAAGTAGAATTTAATATCCGAAAACCAAATGAAGGTGCTGATGGGCA GTGGAAGAGGGATTTGTTCTTCATAAATCAAAGAGTGAAGAGGCTCATGCTGAAGATTCGGTTATGGACCATCA TTTCCGGAAGCCAGCAATGATATAACGTCTCAGCTGGAGATCAATTTTGGAGACCTTGGCCGCCCAGGACGTGG CGGCAGGGGAGGACGACGTGGCCGTGGTGGCCCCCAAACCGTGGCAGCAGGACCGACAAGTCAAGTGC TTCTGCTCCTGATGTGGATGACCCAGAGGCATTCCCAGCTCTGGCTTAACTGGATGCCATAAGACAACCCTGGTT ACTGTCATTCATACCATTCACACCTAAAGACTGAATTTTATCTGTTTTAAAAATGAACTTCTCCCGCTACACAGA AGTAACAAATATGGTAGTCAGTTTTGTATTTAGAAATGTATTGGTAGCAGGGATGTTTTCATAATTTTCAGAGAT TATGCATTCTTCATGAATACTTTTGTATTGCTGCTTGCAAATATGCATTTCCAAACTTGAAATATAGGTGTGAAC CTGGTTTTAAATATTGGACATACTGGTTTTAATACCTGCTTTGCATATTCACACATGGTCAACTGGGACATGTTA TCAGTACTTGAACAAATTCAAAGCACATTTGGTTTATTAACCCTTGCTCCTTGCATGGCTCATTAGGTTCAAATT ATAACTAATTTACATTTTCAGCTATATTTACTTTTTAAATGCTTGAGTTTCCCATTTTAAAATCTAAACTAGACA TCTTAATTGGTGAAAGTTGTTTAAACTACTTATTGTTGGTAGGCACATCGTGTCAAGTGAAGTAGTTTTATAGGT ATGGGTTTTTTCTCCCCCTTCACCAGGGTGGGTGGAATAAGTTGATTTGGCCAATGTGTAATATTTAAACTGTTC **TGTAAAATAAAAAAAAAAAAAAAA**

281/6881 FIGURE 261

$$\label{thm:policity} \begin{align} MPGHLQEGFGCVVTNRFDQLFDDESDPFEVLKAAENKKKEAGGGGVGGPGAKSAAQAAAQTNSNAAGKQLRKESQ\\ KDRKNPLPPSVGVVDKKEETQPPVALKKEGIRRVGRRPDQQLQGEGKIIDRRPERRPPRERRFEKPLEEKGEGGE\\ FSVDRPIIDRPIRGRGGLGRGRGRGRGRGRGDGFDSRGKREFDRHSGSDRSGLKHEDKRGGSGSHNWGTVKDEL\\ TDLDQSNVTEETPEGEEHHPVADTENKENEVEEVKEEGPKEMTLDEWKAIQNKDRAKVEFNIRKPNEGADGQWKK\\ GFVLHKSKSEEAHAEDSVMDHHFRKPANDITSQLEINFGDLGRPGRGGRGGRGGRGGRGRRGRTDKSSASAP\\ DVDDPEAFPALA\\ \end{align*}$$

282/6881 FIGURE 262

ACCTTTAAGCGTCACGGGTGGGGCTGCAGCTTCTGGACCTAGGACTTTGAAC<u>ATG</u>TCGCGCCTGAAGCGGATAGC GGGGCAGGATCTCCGCGCTGGTTTCAAAGCAGGTGGAAGAGCTGCGGTACCTCGGTACCCCAAGGGCTGTTGAA GGCAGCGAGGAAGAGCGGCCAGTTAAACCTGTCGGGTAGAAACCTCAGTGAAGTGCCGCAGTGTGTCTGGAGAAT TTTGACCAAACTAATATCAAACAATAAACTTCAGTCACTTACAGATGACCTGCGACTCTTGCCTGCACTGAC TAATGTCAGCCATAATAAACTGAAAATACTCCCTGAAGAAATTACAAACCTAAGAAACCTGAAGTGCCTGTATCT CCAGCATAATGAATTAACCTGCATATCAGAGGGATTTGAACAACTTTCCAATTTAGAAGATTTAGATCTTTCAAA CAATCATCTTACAACTGTTCCTGCTAGTTTTTCTTCTTCTGTCCAGTCTGGTGCGACTCAATCTTTCTAGTAATGA ACTGAAGAGTTTGCCAGCAGAAATAAATAGAATGAAAAGGTTGAAGCATTTGGATTGTAATTCAAATCTCTTGGA AACTATACCTCCTGAATTGGCTGGCATGGAATCACTAGAATTGCTTTATTTGCGGAGGAATAAATTACGTTTTCT ACCAGAATTTCCTTCTTGTAGTCTATTGAAGGAATTGCACGTAGGTGAAAACCAGATTGAAATGTTAGAGGCAGA ACATCTTAAACATCTGAATTCAATTCTTGTGCTAGACCTGAGGGATAACAAGTTAAAATCTGTTCCAGATGAAAT TATACTACTACGGICCTTGGAAAGGCTTGACCTAAGCAACAATGATATTAGTAGTCTTCCCTATTCATTGGGGAA CCTTCATTTGAAATTTTTGGCATTAGAAGGAAATCCTTTGAGAACAATTCGAAGAGAAATTATAAGTAAAGGAAC ACAAGAAGTCCTAAAATATCTACGAAGCAAGATCAAAGATGATGGACCTAGCCAAAGTGAGTCTGCTACTGAGAC TGCCATGACACTACCAAGTGAATCCAGAGTCAATATACATGCCATCATTACATTAAAAATATTAGACTATAGTGA TAAACAAGCAACTTTGATTCCTGATGAGGTGTTTGATGCAGTAAAAAGCAACATCGTCACTTCTATTAACTTCAG TAAGAATCAACTATGTGAAATTCCAAAAAGGATGGTAGAACTGAAGGAAATGGTTTCTGATGTCGATCTCAGTTT TAATAAACTTTCCTTTATATCCTTGGAGTTATGTGTGTCTTCAGAAATTGACTTTTTTAGATCTCAGGAACAATTT TTTAAATTCTTTGCCAGAAGAAATGGAATCACTGGTAAGACTGCAAACGATCAATCTTTCCTTTAATAGGTTTAA AATGCTACCTGAAGTTCTATATCGTATCTTCACACTTGAAACAATTCTGATTAGTAATAATCAGGTTGGATCTGT GGACCCTCAGAAAATGAAGATGATGGAAAATCTGACCACGTTGGACCTTCAAAATAATGACCTCTTACAAATTCC CATATTAATGAAAGGAACAGCTGCTATACTTGAATATTTGAGAGACCGAATTCCTACTTAACATGGAGTTGCTTT ATAACCCTTGTCATGTATTATCACCCTGGTTAATTCTAAGGAGGATGTAACATTTGTTTTAGTATCATCTTAAA AGGTGATTATTGTAATTGATCTTGTAGTTTCCCAGTATCACCTACCCGTTGGTATAATTAGCCTGGGCCATATTC ACTGCCAGTAAATATTTTTACATTTTTATTTAAGATTTTTGTAAGGTGTTGTGTACATTTGTAATGGTGATAACC ACAATGTGTTCATACATTTGTTCTAAATGTTTTGCTTATGATTTATCCTGCTAACTTTCATTTTCTTATAGCAAG CAGTTTTTTCAAAAATGAATTTTTATTTAATGTGGTTCAGTATTATAATAACAAAGCATTTTTGTAGAACTGGTT TTTTTTCTCATTTATTTTTGTATTCCATACAATGTGACCAATTGACTTGAATATGACTAGCCAGTTTCTATGTTT TTGTTAGATATAAAATTAAATCGAATTTTGTTGAATACTGTTCTTTGGCATTTAAAAAATAAGACCTTCTTATCT TGGGCCACATGTCAAAAGAAAAAGGAAACAAAAATATATTAAAAATAAGACTTTTCATTACCCATGATAGGACTT CTTGCAATCTTGGTAAGACTAAACTTGCAGTGTTTTTCTAAAAGGGAATTTGATAGGTAAACTTGATTTAATAAA AATTAAATATCATTTTTGTTTACACCAAAATTATCAGAAGTAGGTTGATTAGTCATTATAACACTTACCATATGA CATGCTTATATTATGAAAAAATTGCTAATAAAGATAAATACTACATGTTCAGAATAAAAGTTACATTTTTC

283/6881 FIGURE 263

MSRLKRIAGQDLRAGFKAGGRDCGTSVPQGLLKAARKSGQLNLSGRNLSEVPQCVWRINVDIPEEANQNLSFGAT
ERWWEQTDLTKLIISNNKLQSLTDDLRLLPALTVLDIHDNQLTSLPSAIRELENLQKLNVSHNKLKILPEEITNL
RNLKCLYLQHNELTCISEGFEQLSNLEDLDLSNNHLTTVPASFSSLSSLVRLNLSSNELKSLPAEINRMKRLKHL
DCNSNLLETIPPELAGMESLELLYLRRNKLRFLPEFPSCSLLKELHVGENQIEMLEAEHLKHLNSILVLDLRDNK
LKSVPDEIILLRSLERLDLSNNDISSLPYSLGNLHLKFLALEGNPLRTIRREIISKGTQEVLKYLRSKIKDDGPS
QSESATETAMTLPSESRVNIHAIITLKILDYSDKQATLIPDEVFDAVKSNIVTSINFSKNQLCEIPKRMVELKEM
VSDVDLSFNKLSFISLELCVLQKLTFLDLRNNFLNSLPEEMESLVRLQTINLSFNRFKMLPEVLYRIFTLETILI
SNNQVGSVDPQKMKMMENLTTLDLQNNDLLQIPPELGNCVNLRTLLLDGNPFRVPRAAILMKGTAAILEYLRDRI
PT

284/6881 FIGURE 264

285/6881 FIGURE 265

GCTCTTTCCCTAAGCAGCCTGAGGTAATCTGTGAAAATGGTTCGCTACTCACTTGACCCGGAGAACCCCACGAAA
TCATGCAAATCAAGAGGTTCCAATCTTCGTGTTCACTTTAAGAACACTCGTGAAACTGCTCAGGCCATCAAGGGT
ATGCATATACAAAAAGCCACGAAGTATCTGAAAGATGTCACTTTACAGAAACAGTGTGTACCATTCCGACGTTAC
AATGGTGGAGTTGGCAGGTGTGCGCAGGCCAAGCAGTGGGGCTGGACACAAGGTCGGTGGCCCAAAAAGAGTGCT
GAATTTTTGCTGCACATGCTTAAAAACACAGAGAGTAATGCTGAACTTAAGGGTTTAGATGTAGATTCTCTGGTC
ATTGAGCATATCCAAGTGAACAAAGCACCTAAGATGCGCCGGCGGACCTACAGAGCTCATGGTCGGATTAACCCA
TACATGAGCTCTCCCTGCCACATTGAGATGATCCTTACGGAAAAAGGAACAGATTGTTCCTAAACCAGAAGAGGAG
GTTGCCCAGAAGAAAAAGATATCCCAGAAGAAAACTTATGGCACGGGAGTAAATTCAGCAT
TAAAATAAATGTAATTAAAAGG

286/6881 FIGURE 266

MVRYSLDPENPTKSCKSRGSNLRVHFKNTRETAQAIKGMYIQKGTKYLKDVTLQKQCIPFRHYNGGVGRCAQAKQ WGWTQGRWPKKSAEFLLHVLKNTESNAELKGRFSGH

287/6881 FIGURE 267

AATACCCAGCTTGGTTTATTTTTCTTAGAATCTGTTGCTAAGACTGGGGACGCTGTTTTCTTTTACAAAGGGAAA ${\tt TCTAAGTTAATTTCAAGGCATTCGAA} \underline{{\tt ATG}} {\tt GGGAAAGACTATTATTGCATTTTGGGAATTGAGAAAGGAGCTTCAG$ ATGAAGATATTAAAAAGGCTTACCGAAAACAAGCCCTCAAATTTCATCCGGACAAGAACAAATCTCCTCAGGCAG AGGAAAAATTTAAAGAGGTCGCAGAAGCTTATGAAGTATTGAGTGATCCTAAAAAGAGAGAAATATATGATCAGT TTGGGGAGGAAGGGTTGAAAGGAGGAGCAGGAGGTACTGATGGACAAGGAGGTACCTTCCGGTACACCTTTCATG GCGATCCTCATGCTACATTTGCTGCATTTTTCGGAGGGTCCAACCCCTTTGAAATTTTCTTTGGAAGACGAATGG GTGGTGGTAGAGATTCTGAAGAAATGGAAATAGATGGTGATCCTTTTAGTGCCTTTGGTTTCAGCATGAATGGAT ATCCAAGAGACAGGAATTCTGTGGGGCCATCCCGCCTCAAACAAGATCCTCCAGTTATTCATGAACTTAGAGTAT CACTTGAAGAGATATATAGTGGTTGTACCAAACGGATGAAGATTTCTCGAAAAAGGCTAAACGCTGATGGAAGGA GTTACAGATCTGAGGACAAAATTCTTACCATTGAGATTAAAAAAGGGTGGAAAGAAGGCACCAAAATTACTTTTC CAAGAGAAGGAGATGAAACACCAAATAGTATTCCAGCAGACATTGTTTTTATCATTAAAGACAAAGATCATCCAA AATTTAAAAGGGATGGATCAAATATAATTTATACTGCTAAAATTAGTTTACGAGAGGCATTGTGTGGCTGCTCAA TTAATGTACCAACACTGGATGGAAGAAACATACCTATGTCAGTAAATGATATTGTGAAACCCGGAATGAGGAGAA GAATTATTGGATATGGGCTGCCATTTCCAAAAAATCCTGACCAACGTGGTGACCTTCTAATAGAATTTGAGGTGT TTTGTTACACATATTTTGATAAGGCACTGAAAATATAAAAGGACTGGTAGTTTACTGATGTAGATGTGAATTCTG TATAAAGATGTGTAAATTGTTTTGAGGGTTCATTAAATTGCAT

288/6881 FIGURE 268

MGKDYYCILGIEKGASDEDIKKAYRKQALKFHPDKNKSPQAEEKFKEVAEAYEVLSDPKKREIYDQFGEEGLKGG AGGTDGQGGTFRYTFHGDPHATFAAFFGGSNPFEIFFGRRMGGGRDSEEMEIDGDPFSAFGFSMNGYPRDRNSVG PSRLKQDPPVIHELRVSLEEIYSGCTKRMKISRKRLNADGRSYRSEDKILTIEIKKGWKEGTKITFPREGDETPN SIPADIVFIIKDKDHPKFKRDGSNIIYTAKISLREALCGCSINVPTLDGRNIPMSVNDIVKPGMRRRIIGYGLPF PKNPDQRGDLLIEFEVSFPDTISSSSKEVLRKHLPAS

289/6881 FIGURE 269

GCGCACGGCCTGTCCGCTGCACACCAGCTTGTTGGCGTCTTCGTCGCCGCGCTCGCCCCGGGCTACTCCTGCGCG $\texttt{CCACAATG} \textbf{AGCTCCCGCATCGCCAGGGGGCGCTCGCCTTAGTCGTCACCCTTCTCCACTTGACCAGGCTGGCGCTCTCTCCACTTGACCAGGCTGGCGCTCTCTCCACTTGACCAGGCTGGCGCTCTCTCCACTTGACCAGGCTGGCGCTCTCTCCACTTGACCAGGCTGGCGCTCTCTCACTCTCCACTTGACCAGGCTGGCGCTCTCTCACTCTCCACTTGACCAGGCTGGCGCTCTCTCACTCTCCACTTGACCAGGCTGGCGCTCTCTCACTCACTCTCACTCACTCACTCACTCTCA$ GCTGCGGCTGCTGTAAGGTCTGCGCCAAGCAGCTCAACGAGGACTGCAGCAAAACGCAGCCCTGCGACCACACCA CCTGTGAATATAACTCCAGAATCTACCAAAACGGGGAAAGTTTCCAGCCCAACTGTAAACATCAGTGCACATGTA TTGATGGCGCCGTGGGCTGCATTCCTCTGTGTCCCCAAGAACTATCTCTCCCCAACTTGGGCTGTCCCAACCCTC GGCTGGTCAAAGTTACCGGGCAGTGCTGCGAGGAGTGGGTCTGTGACGAGGATAGTATCAAGGACCCCATGGAGG ACCAGGACGCCTCCTTGGTAAGGAGCTGGGATTCGATGCCTCCGAGGTGGAGTTGACGAGAAACAATGAATTGA $\tt TTGCAGTTGGAAAAGGCAGCTCACTGAAGCGGATCCCTGTTTTTGGAATGGAGCCTCGCATCCGATACAACCCTT$ TACAAGGCCAGAAATGTATTGTTCAAACAACTTCATGGTCCCAGTGCTCAAAGACCTGTGGAACTGGTATCTCCA AGCCAGTGTACAGCAGCCTGAAAAAGGGCAAGAAATGCAGCAAGAACCAAGAAATCCCCCGAACCAGTCAGGTTTA CTTACGCTGGATGTTTGAGTGTGAAGAAATACCGGCCCAAGTACTGCGGTTCCTGCGTGGACGGCCGATGCTGCA CGCCCCAGCTGACCAGGACTGTGAAGATGCGGTTCCGCTGCGAAGATGGGGAGACATTTTCCCAAGAACGTCATGA TGATCCAGTCCTGCAAATGCAACTACAACTGCCCGCATGCCAATGAAGCAGCGTTTCCCTTCTACAGGCTGTTCA CTCATTCTTGAGGAGCATTAAGGTATTTCGAAACTGCCAAGGGTGCTGGTGCGGATGGACACTAATGCAGCCACG ATTGGAGAATACTTTGCTTCATAGTATTGGAGCACATGTTACTGCTTCATTTTGGAGCTTGTGGAGTTGATGACT TTCTGTTTTCTGTTTGTAAATTATTTGCTAAGCATATTTTCTCTAGGCTTTTTTCCTTTTGGGGTTCTACAGTCG TAAAAGAGTAATAAGATTAGTTGGACAGTTTAAAGCTTTTATTCGTCCTTTGACAAAAGTAAATGGGAGGCAT TCCATCCTTCCTGAAGGGGGACACTCCATGAGTGTCTGTGAGAGGCAGCTATCTGCACTCTAAACTGCAAACAG **AAATATTTACCT**

290/6881 FIGURE 270

MSSRIARALALVVTLLHLTRLALSTCPAACHCPLEAPKCAPGVGLVRDGCGCCKVCAKQLNEDCSKTQPCDHTKG
LECNFGASSTALKGICRAQSEGRPCEYNSRIYQNGESFQPNCKHQCTCIDGAVGCIPLCPQELSLPNLGCPNPRL
VKVTGQCCEEWVCDEDSIKDPMEDQDGLLGKELGFDASEVELTRNNELIAVGKGSSLKRIPVFGMEPRIRYNPLQ
GQKCIVQTTSWSQCSKTCGTGISTRVTNDNPECRLVKETRICEVRPCGQPVYSSLKKGKKCSKTKKSPEPVRFTY
AGCLSVKKYRPKYCGSCVDGRCCTPQLTRTVKMRFRCEDGETFSKNVMMIQSCKCNYNCPHANEAAFPFYRLFND
IHKFRD

291/6881 FIGURE 271

GGGGGAATATACAAAGTGAAGCCACATTGCCAAACTTGCAGCAGCGATTGCAGCAGTTGCTGCCGCTGCGCCGCG CCTGAAGCCGCGCGCGGGCCGAGGGCTCCTGCAGCTCCTCGCGCGCAGTCGGAGGCGGAGAAGGACGAAGAC TGAGACTGACACTTCTGCTCCCGGCCGCCCGGCACTTACGCGGGGGCCCCCCAACCCGCCCCAGAGCAACGCGAT CAATATTGCAATATAGGGGAAAAGCAGACCATGTGAATCCGGGCAGCAGCTCGCAGCCGCCCCCGGTGACGGCC GGCTCCCTCTCCTGGAAGCGGTGCGCAGGCTGCGGGGGCAAGATTGCGGACCGCTTTCTGCTCTATGCCATGGAC AGCTATTGGCACAGCCGGTGCCTCAAGTGCTCCTGCCAGGCGCAGCTGGGCGACATCGGCACGTCCTGTTAC ACCAAAAGTGGCATGATCCTTTGCAGAAATGACTACATTAGGTTATTTGGAAATAGCGGTGCTTGCAGCGCTTGC GGACAGTCGATTCCTGCGAGTGAACTCGTCATGAGGGCGCAAGGCAATGTGTATCATCTTAAGTGTTTTACATGC TCTACCTGCCGGAATCGCCTGGTCCCGGGAGATCGGTTTCACTACATCAATGGCAGTTTATTTTTGTGAACATGAT AGACCTACAGCTCTCATCAATGGCCATTTGAATTCACTTCAGAGCAATCCACTACTGCCAGACCAGAAGGTCTGC TAAAAGGTCAGAGTAATGCAGAATGCGTGCCTTCATCTCAGATTTGTTCATCACAGGTGGATCCCATGTGTCTTC AGTAGACAAGTCACCTTTGTAGCTAGCACCAGTGCCAGCTCCATGCCATTGCACCTTCTTTAGTCTTGATTGCCC TTCCCGCATTTATTGGTGTATTAAAATGACTGAATATGAACATTAAGGACTCCATGAACCTGGGCTAATGGGAGA CTAATGAAGCTAATTAAAAGAAGCATTCAAATCTGCTTTCTACCCTCATTAACAATTAGCAGGGCACTGGCCAGA GTTTGTACCCTGTGTTTTACCTTAACAACATTCTATTTGCTCTTTGTATATTTAAGTGTTGTAAGGAAACGTGTT TCAATCAAAACTGACCATGAGATAAAGGAAAGAGATGTGGCTTTTGTGATATTCTATCACAAACACTTATTGTAT CTCTGTAAAATACAATGTATGTATGCATGTAAGTGTTTTTGTCCTAATGTTGCTACTCCCATGGCAAAGAAAAAA AAAAGAATGAAAAAAAGAAAAAATTTGGAAAAAAAATCAGGCTCATAGCAGCTACTGTGTAGAAAAATTCCCC CTACTTCTAATTTGCTGAATGAAGAAAAAAAAAAATCTTTTATTTGTGATATTTTCAGAGACATTTGCTCTAGTA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

292/6881 FIGURE 272

 ${\tt MVNPGSSSQPPPVTAGSLSWKRCAGCGGKIADRFLLYAMDSYWHSRCLKCSCCQAQLGDIGTSCYTKSGMILCRN DYIRLFGNSGACSACGQSIPASELVMRAQGNVYHLKCFTCSTCRNRLVPGDRFHYINGSLFCEHDRPTALINGHL NSLQSNPLLPDQKVC}$

293/6881 FIGURE 273

AGCGATGGCGGCTGGGCCGAGTGGGTGTCTGGTGCCGGCGTTTTGGGCTACGGTTGTTGTTGGCGACTGTGCTTCA AGCGGTGTCTGCTTTTGGGGCAGAGTTTTCATCGGAGGCATGCAGAGGTTAGGCTTTTCTAGCAACTTGCTTTG CAGCTCTTGTGATCTTCTCGGACAGTTCAACCTGCTTCAGCTGGATCCTGATTGCAGAGGATGCTGTCAGGAGGA AGCACAATTTGAAACCAAAAAGCTGTATGCAGGAGCTATTCTTGAAGTTTGTGGATGAAAATTGGGAAGGTTCCC TCAAGTCCAAGCTTTTGTTAGGAGTGATAAACCCAAACTGTTCAGAGGACTGCAAATCAAGTATGTCCGTGGTTC AGACCCTGTATTAAAGCTTTTGGACGACAATGGGAACATTGCTGAAGAACTGAGCATTCTCAAATGGAACACAGA CAGTGTAGAAGAATTCCTGAGTGAAAAGTTGGAACGCATA<u>TAAA</u>TCTTGCTTAAATTTTGTCCTATCCTTTTGTT ACCTTATCAAATGAAATATTACAGCACCTAGAAAATAATTTAGTTTTGCTTCCATTGATCAGTCTTTTACT TGAGGCATTAAATATCTAATTAAATCGTGAAATGGCAGTATAGTCCATGATATCTAAGGAGTTGGCAAGCTTAAC AAAACCCATTTTTTATAAATGTCCATCCTCCTGCATTTGTTGATACCACTAACAAAATGCTTTGTAACAGACTTG $\tt CGGTTAATTATGCAAATGATAGTTTGTGATAATTGGTCCAGTTTTACGAACAACAGATTTCTAAATTAGAGAGGT$ TAACAAGACAGATGATTACTATGCCTCATGTGCTGTGTGCTCTTTGAAAGGAATGACAGCAGACTACAAAGCAAA TAATACAAATGTTATTTATAGTTTACAATGAATGCACTGCATAAAAACTTTGTAGCTTCATTATTGTAAAACATA TTCAAGATCCTACAGTAAGAGTGAAACATTCACAAAGATTTGCGTTAATGAAGACTACACAGAAAACCTTTCTAG GGATTTGTGTGGATCAGATACATACTTGGCAAATTTTTTGAGTTTTACATTCTTACAGAAAAGTCCATTTAAAAAGT TTTCATGTTTAAAAATGATGTTTTTCAATGCATTTTTTCATGTAAGCCCTTTTTTTAGCCAAAATGTAAAAATG GCTGTAATATTTAAAACTTATAACATCTTATTGTTGGTAATAGTGCTTTATATTTGTCTGATTTTATTTTTCAAA GTTTTTTCATTTATGAACACATTTTCATTGGTATATTATTTAAGGAATATCTCTTGATATAGAATTTTTATATTA AAAATGATTTTTTTTTTGGC

294/6881 FIGURE 274

 ${\tt MAAGPSGCLVPAFGLRLLATVLQAVSAFGAEFSSEACRELGFSSNLLCSSCDLLGQFNLLQLDPDCRGCCQEEAQFETKKLYAGAILEVCGENWEGSLKSKLLLGVINPNCSEDCKSSMSVVQTLYLKLLDDNGNIAEELSILKWNTDSVEEFLSEKLERI$

295/6881 FIGURE 275

296/6881 FIGURE 276

GCTCTTTCCCTAAGCAGCCTGAAGTAATCTGTGAAAAATGGTTCGCTATTCACTTGACCCGGAGAACCCCATGAAA
TCATGCAAATCAAGAGGTTCCAATCTTCGTGTTCACTTTAAGGACACTCGTGAAACTGCTCAGGCCATCAAGGGT
ATGCATATACGAAAAGCCACGAAGTATCTTAAAGATGTCACTTTACAGAAACAGTGCATACCATTCCGACGTTAC
AATGGTGGAGTTGGCAAGTGTGCGCAGGCCAAGCAGTGGGGCTGGACACAAGGTCGGTGGCCCAAAAAGAGTGCT
GAATTTTTGCTGCACATGTTTAAAAACGCAGAGGGTAATACTGAACTTAAGGGTTTAGATGTAGATTCTCTGGTC
ATTGAGTATATCCAAGTGAACAAAGCACCTAAGATGCTCCGCCGGACCTACAGAGCTCATGGTCGGATTAACTCA
TACATGAGCTCTCCCTGGCACATTGAGATGATCCTTACTGAAAAGGAACAGATTGTTCCTAAACCAGAAAAGGAC
GTTGCCCAGAAGAAAAAGATATCCCAGAAGAAAACTGAAGAAAAACTTATGGCCCGGAAGTAAATTCAGCAT
TAAAATAAATGTAATTAAAAGG

297/6881 FIGURE 277

CTTTTCACAACGGGTTTGCTGCCAGAACACAGGTGTCGTGAAAACTACCCCTAAAAGCCAAAATGGGAAAAGAA AAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACTTCTGGCCATCTGATCTAC AAATGCGGTGGCATCGACAAAAGAACAATTGAAAAAATTGCAGAAAGAGGCTGCTGAGATGGGAAAGGGCTCCTTC AAGTATGCCTGAGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAA TTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTCATCAAAAACATGATTACA GGGACATCTCAGGCTGGTTGTGCTGTCCTAATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCCAAG AATGGGCAGACCCGAGAGCATGCCCTTCTGGCATATACACTGGGTGTGAAACAACTAATTGTTGATGTTAACAAA ATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAAATCAGCACTTACATTAAG AAAATTGGCTACAACCCCAACACAGTAGCATTTGTGCCAATTTCTGGTTAGAATGGTGACAACATGCTGGAGCCA AGTGCTAACATGCCTTGGTTCAAGGGATGGAAAGTCACCCATAAGGATGGCAATGCCAGTGGAACCATGCTGCTT AAAATTGGTGGTATTGGTACTGTTCTTGTTGGCCGAGTGGAGACTGGTATTCTCAAACCTGGTATGGTGGTCACC GGGGACAATATGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCATCGTGGCAACGTTGCTGGTGACAGC GCTGGCAAGGTCACCAAGTCTGCCCAGAAAGCTCAGAAGGCTAAATGATATTATCCCTAATACCTGCCACCCCA TGGTTAATGATAATACCATCAAAACCTTCAGAAGGAAAGGAGAATGTTTTGTGGACCACTTTGGTTTTCTT TTTCGCATGCAGCAGTTTTAAGTTATTAGTTTTTAAAATCAGTACTTTTTAAATGGAAACAACTTGACCAAAAAT TTGTCACAGAATTTTGAGACCCATTAAAAAAGTTTAATGAG

298/6881 FIGURE 278

MLEPSANMPWFKGWKVTHKDGNASGTMLLEALDCILPPTRPTDKPLRLPLQDVYKIGGIGTVLVGRVETGILKPG
MVVTFAPVSVTTEVKSVEMHHEALNEALPGDNMGFNVKNVSVKDVHRGNVAGDSKNDPPMEAAGKPMCVÉSFSDY
PPLGRFTVHDMRQTLAVGVIKAVDKKAAGAGKVTKSAQKAQKAK

299/6881 FIGURE 279

300/6881 FIGURE 280

GCCAAAATGGGAAAAGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACT
TCTGGCCATCTGATCTACAAATGCGGTGGCATCGACAAAAGAACAATTGAAAAATTGCAGAAAAGAGCTGCTGAG
ATGGGAAAGGGCTCCTTCAAGTATGCCTGAGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATT
GATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTC
ATCAAAAACATGATTACAGGGACATCTCAGGCTGGTTGTGCTGTCCTAATTGTTGCTGCTGGTGTTGGTGAAATTT
GAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCATATACACTGGGTGTAAACAACTA
ATTGTTGATGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAA
ATCAGCACTTACATTAAGAAAATTGGCTACAACCCCAACACAGTAGCATTTTTGTGCCAAATTCTTGAAGTCTGGTG
ATGCTGCCATTGCTGATATGGTTCCTGGCAAGCCCATGTGTTTGAGAGCTTCCCAGACTATCCACCTTTGGGTC
GCTTTACTGTTCATGATATGAGACAGACACTTGCGGTGGTG

301/6881 FIGURE 281

302/6881 FIGURE 282

GTTACTCAAAGACTACCTACTGCGTGGTGCTCCAAGTGAAATTCGTGAAGAATTAGAAAAGCAGCTTTATTCTTG TATTGCTCTCAAAGTCACAGCAAATCAAATGGAAATGGAACATTCTTTGATACTAAATAACCTAAAAAACATTATT GTGGAAGAAATTTCCTACACTAATGACTCTTAGTTCATTTGGACATAATTACCATTTTAAGAAACCTGCCACTT TTANAGAACAATTTTGAGCATTAAAAAAAAATGGCTTCAAATTCCGGCCAGTTACACAAAACTCCTTCCCCCCAG GCCTGAGAAGCCATCAGTATGTGATCACTGAAGTAATGGCAGGTGTAGGATCAACAGGTCCCCAAGATGTCATTC $\tt CTGGAAGCATTGTGTTTGCATTGAAGCTGCTGTTCAACAAGAAAATTTATAAATTTACTAATGTCTTAGCATGGT$ AAAGTTTGCACATTAACAGAAATTAAGACTGCAAAGCAGGTTAAACTTGCTTCTTTATAAAACAGATGTTGGGTT AATAGCATGGTTTACTGTATTAAAGACTTATACACCCATTTTTAACCTCATTCAGACATCAAGTTATGTGTAGCT TCACAATGGTTCAAGTGGCTTACTTCAAGAAATCTTATACTTGACAGTACACCAATTTTATTGACTAAAAATGGA AGGCCCAATCAAGATCCACATATCCTGATTTTGAACTATGTGAAAGTGGGACTGTAAGTGCAAGACTAAAATAAA TTATAGCAGACTTTTTAGTAATAACTTTCCATTTTCAAACAGTATATCCTGTGGGCCAAAGGGCTATTTCTTAAA GAGGCATGTAAATGTATTTATTTATCTAATGTTTTTTTCCCCATGTAAACTTGATATACAAGGTTTAGTATTTGC TCCTCTTTCATATTATTTTCACACGTATACTCAGATTTGGCATGTACCTTTCAACATCTCCATAAAATTAAACAC $\tt CTTTTGGAGAAAGAACCACTATTTTCTGCTCAAAGGTTTCGCCTAAAGTGGAACATGTTAAAAATCTATG$ TGACCATCACTGGACAGCTTTCTCTCAAAACTTTCCTTCAACGCCATGGATTAGCACCAGTTTTGTTTACTTTAA $\tt CTTGCCAAATTTTTAGGGAGAGCTGTTCATCATACAACATAAGGGATAATGACTCCTGTCAGGTAAAACAGAAGC$ TTGCTTTTCCAAAATATTTCAGGGTATTTCCTATAAGGTTCATAAGAATAAGAGCTTAACACAGAAATAGTTGCT GTTCATAAGTTTATCTATATCTGAAAAAATCATAGAAAATTGCTGGGTTTAGCTCTCAGCAGCCCGCTCCTG AGCTCTGAGGAAGCTTGCCTTCTTTTGAGCTACCCGATCCTTCTTCTGAGCAAGGGACATTTTGGGACGGTTCCA CCTACAAAAGATAGGAATATATTTTTTTAAACTATAACTGAAGAGAATAGAATATTTAATTTAAAATTTTAATA AAATTTAATTTTGATAGAGAATATTTAAGACTTTGCAATCAGAAGGTTAAATAATCCAAGTTCAAATACATTTAC TTATGTATGATCTTAAGCTAACTTTCCCAAACCCCAACTTCTGTGATGTCCTACTACCATAGGGCCAAAAGTCAA ATAGAAGACATGTTAGATTCAGTAATACCACTTCTAGGTATTTGCCCAAATGTTTTGAAATCAGTTTGTCCAAGA GAGTGGCACTCCCATGTTCATTGCAGCACTATATATTAATAGCAACAGATAAATGGATAAAGGAAATGTGGTATA GAATATTGTGCTCAGTGAAATAAGCCAGGCACAAAAAGACAAATACTTCATATTCATATAGAATCTAAAACAATG GTATAAAATCTCCAACAGGAGGAGTATGATTTTGTTTTTAGTTCTATTGCACAGCATGATGAATATAGAATATCG TACATTTCACAATTAAGAGAATAAATTTCAAATGTTGTTGCCACAAAGTGTTAAGTATTTGAGGTGAATATGTTA AATACATTGATTTAATTACTATACATTGTATTTGTGGGCCATCACATCACTTTATGCTTACATGTTCATTAAGTA TTACTTTCTATTCCATTTAAAGATCAAAACATGAAAGATCAACAAAAAGCAACTTGTCAGCCAATAAAAAAATGC AGTAACCAGTACTTAGACTGTACTAGGATAGAAAGAACCACCTCAGTAGTGTCTGAGGCTAACACATTTCCATCA CCACAGTTACTTTTGCAAACCTGGTTCCCTTCGCTTCTGCCACATCACGCAGAGCTAGTGATCGAGTTTGCACAA ACCTCTTCTTTTAACTTCTTCTTGGGCTTCTTTTCATAGACTGGATTCTCTCGTATAGCAGCATGAGCTTTCT TATACATCTCCTCCATCTGAAACAAAGGAAAGCAAACAGTACTTGGTTTCATTTCATGTGCCCTACTATATTAAT GCAACCATAACTTATCTTGTCCTTCTAAGCCAGATTCTCAAAAGGAACTAAACTAAATCAATGTTGGTAAACACT TTAACTTCTAAATGTAACTCACCTTTTCCTAACAAATTCCCAATTTTCACCTTATGCAATGTGAATTATCACTAC AGAACTCCATCTTACTCAAGAAAAAATCAGGCCAGGTGTGGTGGTTCATGCCTGTAATCTCAAGCACTTTGGGA GTCTGAAGTGGGAGGATCACTTCAGCCCAGGAGTTTGAGACCAGCTAAGGCAACACAGTGAGACCTGTCTCCATA AAAAACTAATTAGCCAGGTGGCAATTATTAATGGTGGCATGCACCTGTAGTCCCAGCTACAGGACTACACGTGA GTCCAGGAGGTCAAGGCTGCAGTGGCACAATCACAGCTCACTGGACCCCAGCCTAGATGACAGAATGAGACCTCA TCTCTACCAAAAATTAAAAAAAAAAAAAAAAAAAATTAGCAGGG

303/6881 FIGURE 283

 ${\tt MFFSPCKLDIQGLVFAPLSYYFHTYTQIWHVPFNISIKLNTFWRKEPLFSAQRFRLPKVEHVKNLCDHHWTAFSQ} \\ {\tt NFPSTPWISTSFVYFKVLFPFIIWL}$

304/6881 FIGURE 284

305/6881 FIGURE 285

MGFVKVVKNKAYFKRYQVKFRRREGKTDYYARKRLVIQDKNKYNTPKYRMIVRVTNRDIICQIAYARIEGDMIV CAAYAHELPKYGVKVGLTNYAAAYCTGLLLARRLLNRFGMDKIYEGQVEVTGDEYNVESIDGQPGAFTCYLDAGL ARTTTGNKVFGALKGAVDGGLSIPHSTKRFPGYDSESKEFNAEVHRKHIMGQNVADYMRYLMEEDEDAYKKQFSQ YIKNSVTPDMMEEMYKKAHAAIRENPVYEKKPKKEVKKKRWNRPKMSLAQKKDRVAQKKASFLRAQERAAES

306/6881 FIGURE 286

307/6881 FIGURE 287

 ${\tt MVNVKTNLGRNIYQFQYLSPPQYCMLLEEDEDAYKKQFSQYIKNSVTPDMMEEMYKKAHAAVPENPVYEKKPKKE}\\ {\tt VKKKRWNRSKMSLAQKKDWVAQKKASFLRA}$

308/6881 FIGURE 288

GCTGACTCCAGTGTCCCGAGAGGCGCCGCTTCTTCCGCTTTCTCGTCAGGCTCCTGCAACCCCAGGCATGAACCA AGGTTTCTGAACTACTGGGCGGGAGCCAACGTCTCTTCTTCTCCCGCTCTGGCGGAGGCTTTGTCGCTGCGGGC $\tt TGGGCCCCAGGGTGTCCCCC\underline{ATG}GCGGGGCCGCGGGTGGAGGTCGATGGCAGCATCATGGAAGGGGGCGGCCAGA$ GGGCAGAAATTGGCTCAACAGAAATAACCTTTACACCAGAGAAGATCAAAGGTGGAATCCACACAGCAGATACCA AGACAGCAGGGAGTGTGCCCCCTTGATGCAGGTCTCAATGCCGTGTGTTCTCTTTGCTGCTTCTCCATCAGAAC TTCATTTGAAAGGTGGAACTAATGCTGAAATGGCACCACAGATCGATTATACAGTGATGGTCTTCAAGCCAATTG TTGAAAAATTTGGTTTCATATTTAATTGTGACATTAAAACAAGGGGGATATTACCCAAAAGGGGGTGGTGAAGTGA TTGTTCGAATGTCACCAGTTAAACAATTGAACCCTATAAATTTAACTGAGCGTGGCTGTGTGACTAAGATATATG GAAGAGCTTTCGTTGCTGGTGTTTTGCCATTTAAAGTAGCAAAAGATATGGCAGCGGCAGCAGTTAGATGCATCA GAAAGGAGATCCGGGATTTGTATGTTAACATCCAGCCTGTTCAAGAACCTAAAGACCAAGCATTTGGCAATGGAA ATGCAGACAAAGTTGGAATTGAAGCTGCCGAAATGCTATTAGCAAATCTTAGACATGGTGGTACTGTGGATGAGT ATCTGCAAGACCAGCTGATTGTTTTCATGGCATTAGCCAATGGAGTTTCCAGAATAAAAACAGGACCAGTTACAC TCCATACGCAAACCGCGATACATTTTGCTGAACAAATAGCAAAGGCTAAATTTATTGTGAAGAAATCAGAAGATG AAGAAGACGCCGCTAAAGATACTTATATTATTGAATGCCAAGGAATTGGGATGACAAATCCAAATCTA**TAG**AGTA TTTGCCTCTTAAATGATACCTCATTGATATATTGCACTATTTCATAAAATACTATAAAATAATGACTAGGAAGTAA CTTATTAAAGGCTATGACTTAAATTTGAAGATGAAGTACAGTGTTCTAGGTTTGCTGAGAAGGCTTCATTAAATT AATCTCACTTTGAATATCTCCTGAGAGATGGACAATGAAATATCAGTTGGTGGATATGTGTGATAGCTGATTTCA ATATTGAAGTATTGAAATAAAATATTCTTTACACCTGAG

309/6881 FIGURE 289

MAGPRVEVDGSIMEGGGQILRVSTALSCLLGLPLRVQKIRAGRSTPGLRPQHLSGLEMIRDLCDGQLEGAEIGST EITFTPEKIKGGIHTADTKTAGSVCLLMQVSMPCVLFAASPSELHLKGGTNAEMAPQIDYTVMVFKPIVEKFGFI FNCDIKTRGYYPKGGGEVIVRMSPVKQLNPINLTERGCVTKIYGRAFVAGVLPFKVAKDMAAAAVRCIRKEIRDL YVNIQPVQEPKDQAFGNGNGIIIIAETSTGCLFAGSSLGKRGVNADKVGIEAAEMLLANLRHGGTVDEYLQDQLI VFMALANGVSRIKTGPVTLHTQTAIHFAEQIAKAKFIVKKSEDEEDAAKDTYIIECQGIGMTNPNL

310/6881 FIGURE 290

311/6881 FIGURE 291

312/6881 FIGURE 292

GGCACGAGGAGAATCAGGAGCTTAGGATGTATTAACACCAACTCATTAATATACTAACCGGACAATGTTCTACA AACAATTCTACATTGTAAAGGACTGGATTGGCACAAAATAAAATAATTTTATTTTATTCAGCTTATAATATGACT CGATGGAGGAAAATTTGATAAGCATGAGAGAAGACCATTCTTTTCATGTTCGTTACAGAATGGAAGCTTCTTGCC TAGAGCTGGCCTTGGAAGGGGAACGTCTATGTAAATCAGGAGACTGCCGCGCTGGCGTGTCATTCTTTGAAGCTG ${\tt CAGTTCAAGTTGGAACTGAAGACCTAAAAACACTTAGCGCTATTTACAGCCAGTTGGGCAATGCTTATTTCTATT}$ TGCATGATTATGCCAAAGCATTAGAATATCACCATCATGATTTAACCCTTGCAAGGACTATTGGAGACCAGCTGG GGGAAGCGAAAGCTAGTGGTAATCTGGGAAACACCTTAAAAGTTCTTGGGAATTTTGACGAAGCCATAGTTTGTT GTCAGCGACACCTAGATATTTCCAGAGAGCTTAATGACAAGGTGGGAGAAGCAAGAGCACTTTACAATCTTGGGA ATGTGTATCATGCCAAAGGGAAAAGTTTTGGTTGCCCTGGTCCCCAGGATGTAGGAGAATTTCCAGAAGAAGTGA GAGATGCTCTGCAGGCAGCCGTGGATTTTTATGAGGAAAACCTATCATTAGTGACTGCTTTGGGTGACCGAGCGG ${\tt CACAAGGACGTGCCTTTGGAAATCTTGGAAACACACATTACCTCCTTGGCAACTTCAGGGATGCAGTTATAGCTC}$ ATGAGCAGCGTCTCCTTATTGCAAAAGAATTTGGAGATAAAGCAGCTGAAAGAAGAGCATATAGCAACCTTGGAA ${\tt ATGCATATATTTTCTTGGTGAATTTGAAACTGCCTCGGAATACTACAAGAAGACACTACTGTTGGCCCGACAGC}$ TTAAAGACCGAGCTGTAGAAGCACAGTCTTGTTACAGTCTTGGAAATACATATACTTTACTTCAAGACTATGAAA GTTGGAGCTTAGGAAATGCATACACAGCACTAGGAAATCATGATCAAGCAATGCATTTTGCTGAAAAGCACTTGG ${\tt AAATTTCAAGAGGGTTGGGGATAAAAGTGGTGAACTAACAGCACGACTTAATCTCTCAGACCTTCAAATGGTTC}$ TTGGTCTGAGCTACAGCACAAATAACTCCATAATGTCTGAAAATACTGAAATTGATAGCAGTTTGAATGGTGTAC TCCCCAAGTTGGGACGCCGGCATAGTATGGAAAATATGGAACTTATGAAGTTAACACCAGAAAAGGTACAGAACT GGAACAGTGAAATTCTTGCTAAGCAAAAACCTCTTATTGCCAAACCTTCTGCAAAGCTACTCTTTGTCAACAGAC TGAAGGGGAAAAATACAAAACGAATTCCTCCACTAAAGTTCTCCAAGATGCCAGTAATTCTATTGACCACCGAA TTCCAAATTCTCAGAGGAAAATCAGTGCAGATACTATTGGAGATGAAGGGTTCTTTGACTTATTAAGCCGATTTC AAAGCAATAGGATGATGATCAGAGATGTTGCTTACAAGAAAAGAACTGCCATACAGCTTCAACAACAACTTCTT CCACTCCCCCTAAAATGATGCTAAAAACATCATCTGTTCCTGTGGTATCCCCCAACACGGATGAGTTTTTAGATC TTCTTGCCAGCTCACAGAGTCGCCGTCTGGATGACCAGAGGGCTAGTTTCAGTAATTTGCCAGGGCTTCGTCTAA CACAAAACAGCCAGTCGGTACTTAGCCACCTGATGACTAATGACAACAAAGAGGCTGATGAAGATTTCTTTGACA TCCTTGTAAAATGTCAAGGATCCAGATTAGATGATCAAAGATGTGCTCCACCACCTGCTACCACAAAGGGTCCGA CAGTACCAGATGAAGACTTTTTCAGCCTTATTTTACGGTCCCAGGGAAAGAGAATGGATGAACAGAGAGTTCTTT TACAAAGAGATCAAAACAGAGACACTGACTTTGGGCTAAAGGACTTTTTGCAAAATAATGCTTTGTAGAGTTTA AAAATTCAGGGAAAAAATCGGCAGACCAT<u>TAG</u>TTACTATGGATTTATTTTTTTTCCTTTCAAACACGGTAAGGAA ACAATCTATTACTTTTTCCTTAAAAGGAGAATTTATAGCACTGTAATACAGCTTAAAATATTTTTAGAATGATG TAAATAGTTAA

313/6881 FIGURE 293

MREDHSFHVRYRMEASCLELALEGERLCKSGDCRAGVSFFEAAVQVGTEDLKTLSAIYSQLGNAYFYLHDYAKAL EYHHHDLTLARTIGDQLGEAKASGNLGNTLKVLGNFDEAIVCCQRHLDISRELNDKVGEARALYNLGNVYHAKGK SFGCPGPQDVGEFPEEVRDALQAAVDFYEENLSLVTALGDRAAQGRAFGNLGNTHYLLGNFRDAVIAHEQRLLIA KEFGDKAAERRAYSNLGNAYIFLGEFETASEYYKKTLLLARQLKDRAVEAQSCYSLGNTYTLLQDYEKAIDYHLK HLAIAQELNDRIGEGRACWSLGNAYTALGNHDQAMHFAEKHLEISREVGDKSGELTARLNLSDLQMVLGLSYSTN NSIMSENTEIDSSLNGVLPKLGRRHSMENMELMKLTPEKVQNWNSEILAKQKPLIAKPSAKLLFVNRLKGKKYKT NSSTKVLQDASNSIDHRIPNSQRKISADTIGDEGFFDLLSRFQSNRMDDQRCCLQEKNCHTASTTTSSTPPKMML KTSSVPVVSPNTDEFLDLLASSQSRRLDDQRASFSNLPGLRLTQNSQSVLSHLMTNDNKEADEDFFDILVKCQGS RLDDQRCAPPPATTKGPTVPDEDFFSLILRSQGKRMDEQRVLLQRDQNRDTDFGLKDFLQNNALLEFKNSGKKSA DH

314/6881 FIGURE 294

AAGCAGCCTGAGGTAATCTGTGAAAATGGTTCGCTATTCACTTGACCCGGAGAACCCCACGAAATCATGCAAATC
AAGAGGTTCCAATCTTCGTGTTCACTTTAAGAACACTCGTGAAACTGCTCAGGCCATCAAGGGTATGCATATACG
AAAAGCCACGAAGTATCTGAAAGATGTCACTTTACAGAAACAGTGTGTACCATTCCGACGTTACAATGGTGGAGT
TGGCAGGTGTGCGCAGGCCCTGCACATGCTTAAAAACACAGAGAGTAATGCTGAACTTAAGGGTTTAGATGTAGA
TTCTCTGGTCATTGAGCATATCCAAGTGAACAAAGCACCTAAGATGGCCCGCCGGACCTACAGAGCTCATGGTCG
GATTAACCCCATACATGAGCTCTCCCTGCCACATTGAGATGATCCTTACGGAAAAAGGAACAGATTGTTCCTAAACC
AGAAGAGGAGGTTGCCCAGAAGAAAAGGATATCCCAGAAGAAACTGAAGAAAACTTATGGCACGGGAGTA
AATTCAGCAT

315/6881 FIGURE 295

GCAGGCTCTGCCTGTGGCCACTAGCAGAAGCTGCTGTCCTTCCACCACCAGCACCGGACCACCTGCTCCAAGA CCAGCCTCCTGGGGGGACCAGGCACCCGGCCTTCACTGGCACCCAGGGAGCCGTCCTCAGCAGCGTCAACATGTC AAGGCCCAGCAGCAGAGCCATTTACTTGCACCGGAAGGAGTACTCCCAGAACCTCACCTCAGAGCCCACCCTCCT GCAGCACAGGGTGGAGCACTTGATGACATGCAAGCAGGGGAGTCAGAGAGTCCAGGGGCCCGAGGATGCCTTGCA GCAGCTGCTGGACATTGAGACCAAGGAGGAGCTGGACTCTTACCGCCTAGACAGCATCCAGGCCATGAATGTGGC GCTCAACACATGTTCCTACAACTCCATCCTGTCCATCACCGTGCAGGAGCCGGGCCTGCCAGGCACTAGCACTCT GCTCTTCCAGTGCCAGGAAGTGGGGGCAGAGCCAACTGAAGACCAGCCTGCAGAAGGCTCTGGAGGAAGAGCTGGA GCAAAGACCTCGACTTGGAGGCCTTCAGCCAGGCCAGGACAGATGGAGGGGGCCTGCTATGGAAAGGCCGCTCCC TATGGAGCAGGCACGCTATCTGGAGCCGGGGATCCCTCCAGAACAGCCCCACCAGAGGACCCTAGAGCACAGCCT CCCACCATCCCCAAGGCCCCTGCCACGCCACCCAGTGCCCGAGAACCAAGTGCCTTTACTCTGCCTCCTCCAAG GCGGTCCTCTCCCCGAGGACCCAGAGAGGGACGAGGAAGTGCTGAACCATGTCCTAAGGGACATTGAGCTGTT AGGTCTCACCCAGGCACAGTACATTGACTGCTTCCAGAAGATCAAGCACAGCTTCAACCTCCTGGGAAGGCTGGC CACCTGGCTGAAGGAGACAAGTGCCCCTGAGCTCGTACACATCCTCTTCAAGTCCCTGAACTTCATCCTGGCCAG GTGCCCTGAGGCTGGCCTAGCAGCCCAAGTGATCTCACCCCTCACCCCTAAAGCTATCAACCTGCTACAGTC CTGTCTAAGCCCACCTGAGAGTAACCTTTGGATGGGGTTGGGCCCAGCCTGGACCACTAGCCGGGCCGACTGGAC AGGCGATGAGCCCCTGCCCTACCAACCCACATTCTCAGATGACTGGCAACTTCCAGAGCCCTCCAGCCAAGCACC CTTAGGATACCAGGACCCTGTTTCCCTTCGGCGGGGAAGTCATAGGTTAGGGAGCACCTCACACTTTCCTCAGGA ${\tt CATCCTGGAGCCCCTACAGCCGGGGACCCCTGGGACCCAGGGCCAGTCACCCTCTCGGGTTCCAATGCTTCGACT}$ GTCCCTGACGGGGAGCCAGCTACTTCGCATAAGACCTGGGGAGCTACAGATGCTATGTCCACAGGAGGCCCCACG AATCCTGTCCCGGCTGGAGGCTGTCAGAAGGATGCTGGGGATAAGCCCTTAGGCACCAGCTTAGACACCTCCAAG AACCAGGCCCCGCTGATGCAAGATGGCAGATCTGATACCCATTAGAGCCCCGAGAATTCCTCTTCTGGATCCCAG TTTGCAGCAAACCCCACACCCCAGCTCACACAGCAAAAACAATGGACAGGCCCAGAGGCTGAAGCAAACAGTGTC CCTAGGCTTGTCAAGAATCTGTTCAGTCCCTCTCCTTCTCAATAAAAGCATCTTCAAGCTTGT

316/6881 FIGURE 296

 ${\tt GGGAGAAAGCCTGTTGCGTGGAAGATAAGGCGGCGCGGGAAGTGGACACAGGGTGGGCTCAGATCTAAC}$ TGGACTCTCGCTCCTGCTGGCTGGACATCGAGGATTTGGAGGAAGATGTAAGGTTTATTGTGGATGAGACCTTGG ACTTTGGGGGGCTGTCACCATCTGACAGCCGTGAGGAAGACATAACAGTGTTGGTGACTCCAGAGAAACCAC TTCGACGGGGCCTCTCCCACCGAAGTGACCCAAATGCAGTGGCACCTGCCCCCCAGGGTGTGAGGCTCAGCCTAG GCCCCTCAGTCCAGAGAAGCTGGAGGAGATCCTCGATGAGGCCAACCGGCTGGCCGCTCAGCTGGAGCAGTGTG CCCTGCAGGATCGGGAGAGCGCAGGGGGCCTGGGGCCTCGCCGAGTGAAGCCCAGTCCTCGGCGGGAGACCT TTGTGCTGAAGGATAGTCCTGTCCGAGACCTGCTGCCCACTGTGAACTCTTTGACGCGGAGCACCCCCTCCCCAA GGCCCTCCAACATGAAGAGGGAGTCACCCACTTGCAATCTGTTCCCTGCATCCAAAAGCCCAGCATCTTCTCCTC TCAGATCCGTCCTGGCCCCACAGCCTTCTACCAGCAACTCTCAACGCCTGCCCCGGCCGCAGGGAGCAGCTGCTA AATCTTCCAGTCAACTGCCCATTCCCTCGGCCATCCCCAGGCCTGCCAGCCGAATGCCACTCACCAGCCGGAGTG TGCCACCTGGCAGAGGTGCCCTACCTCCGGATTCTCTGTCAACTCGAAAAGGGCTTCCAAGACCAAGCACTGCAG GACACAGAGTGCGGGAAAGTGGACACAAGGTTCCTGTTTCCCAGCGACTAAATCTTCCTGTCATGGGTGCCACTC GCAGCAATCTGCAGCCCCCCAGGAAAGTGGCAGTCCCAGGACCTACCAGG<u>TAA</u>AGAGATCAGGACAGCAAGCAAG ACTTCAGTAGCAAACCACTACAGTCAGTACCTGGACTCGCCTCTACCCAGCAGACCCTGACTCCAGCAGATTCTG GCCCAGGGACAGGAGGAGAGATGCCACCAGGGCTGGTCTCCCAGGAGTAGAGACCATGGGAAATGGGGTGGATT AGGATTGAGCTGGAGAAGACTTAAACTCTCTGGGTTGAAAGAAGATTAGGGGAAAAGAGGTCACCTTCCAGCAGT GAAATGAACAAATAGAAGATGAGAAGTACAGGCAAGTGGTTTGTCTTTATCCACCCCCACTGTTGTGGTCAGCCC CAGAGAATTTTATCTTCTTCCTTGGCATTGGTTCACTGGACATTTCCACGTGAGCGGCCTCCGTAGCTAACCTCC CTGCCCTCTGAGGAGCCATCTTCCTGAATCGCATTCTCTACTGGACTCTGGCCTGCTTGGAGAGGTGGCAGCAGG CACCTGGTCTTCAGAAATTGTTTCCTGTGAATTCTGTGACTCCTAATAGGCCAGTTTGTGATAAGCTTACTCTAT

317/6881 FIGURE 297

MEDLEEDVRFIVDETLDFGGLSPSDSREEEDITVLVTPEKPLRRGLSHRSDPNAVAPAPQGVRLSLGPLSPEKLE EILDEANRLAAQLEQCALQDRESAGEGLGPRRVKPSPRRETFVLKDSPVRDLLPTVNSLTRSTPSPSSLTPRLRS NDRKGSVRALRATSGKRPSNMKRESPTCNLFPASKSPASSPLTRSTPPVRGRAGPSGRAAASPPTPIRSVLAPQP STSNSQRLPRPQGAAAKSSSQLPIPSAIPRPASRMPLTSRSVPPGRGALPPDSLSTRKGLPRPSTAGHRVRESGH KVPVSQRLNLPVMGATRSNLQPPRKVAVPGPTR

318/6881 FIGURE 298

GCAGTGCGGCGGTCACAGGCTGAGTGCTGCGGCGCGATCCTTGCTTCCCTGAGCGTTGGCCCGGGAGGAAAGAAG **ATG**GTGCTGGATCTGGATTTGTTTCGGGTGGATAAAGGAGGGGACCCAGCCCTCATCCGAGAGACGCAGGAGAAG CGCTTCAAGGACCCGGGACTAGTGGACCAGCTGGTGAAGGCAGACAGCGAGTGGCGACGATGTAGATTTCGGGCA GACAACTTGAACAAGCTGAAGAACCTATGCAGCAAGACAATCGGAGAGAAAATGAAGAAAAAAAGAGCCAGTGGGA GATGATGAGTCTGTCCCAGAGAATGTGCTGAGTTTCGATGACCTTACTGCAGACGCTTTAGCTAACCTGAAAGTC TCACAAATCAAAAAGTCCGACTCCTCATTGATGAAGCCATCCTGAAGTGTGACGCGGAGCGGATAAAGTTGGAA GCAGAGCGGTTTGAGAACCTCCGAGAGATTGGGAACCTTCTGCACCCTTCTGTACCCATCAGTAACGATGAGGAT GTGGACAACAAGTAGAGAGGATTTGGGGTGATTGTACAGTCAGGAAGAAGTACTCTCATGTGGACCTGGTGGTG ATGGTAGATGGCTTTGAAGGCGAAAAGGGGGCCGTGGTGGCTGGGAGTCGAGGGTACTTCTTGAAGGGGGTCCTG GTGTTCCTGGAACAGGCTCTCATCCAGTATGCCCTTCGCACCTTGGGAAGTCGGGGCTACATTCCCATTTATACC $\verb|CCCTTTTCATGAGGAAGGAGGTCATGCAGGAGGTGGCACAGCTCAGCCAGTTTGATGAAGAACTTTATAAGGTG| \\$ ATTGGCAAAGGCAGTGAAAAGTCTGATGACAACTCCTATGATGAGAAGTACCTGATTGCCACCTCAGAGCAGCCC ATTGCTGCCCTGCACCGGGATGAGTGGCTCCGGCCGGAGGACCTGCCCATCAAGTATGCTGGCCTGTCTACCTGC TTCCGTCAGGAGGTGGCCTCCCATGGCCGTGACACCCGTGGCATCTTCCGAGTCCATCAGTTTGAGAAGATTGAA CAGTTTGTGTACTCATCACCCCATGACAACAAGTCATGGGAGATGTTTGAAGAGATGATTACCACCGCAGAGGAG TTCTACCAGTCCCTGGGGATTCCTTACCACATTGTGAATATTGTCTCAGGTTCTTTGAATCATGCTGCCAGTAAG AAGCTTGACCTGGAGGCCTGGTTTCCGGGCTCAGGAGCCTTCCGTGAGTTGGTCTCCTGTTCTAATTGCACGGAT TACCAGGCTCGCCGCTTCGAATCCGATATGGGCAAACCAAGAAGATGATGGACAAGGTGGAGTTTGTCCATATG ACTGTGCCTGAGAAATTGAAGGAGTTCATGCCGCCAGGACTGCAAGAACTGATCCCCTTTGTGAAGCCTGCGCCC ACCCTAGAAAACAGGCTGCAGAACATGGAGGTCACCGATGCTTGAACATTCCTGCCTCCCTATTTGCCAGGCTTT CATTTCTGTCTGAGATCTCAGAGCCTGCCCAACAGCAGGGAAGCCAAGCACCCATTCATCCCCCTGCCCCCA TCTGACTGCGTAGCTGAGAGGGGAACAGTGCCATGTACCACACAGATGTTCCTGTCTCCTCGCATGGGCATAGGG ACCCATCATTGATGACTGATGAAACCATGTAATAAAGCATCTCTGGGGAGGGCTTAGGACTCTTCCTCAGTCTTC

319/6881 FIGURE 299

MVLDLDLFRVDKGGDPALIRETQEKRFKDPGLVDQLVKADSEWRRCRFRADNLNKLKNLCSKTIGEKMKKKEPVG
DDESVPENVLSFDDLTADALANLKVSQIKKVRLLIDEAILKCDAERIKLEAERFENLREIGNLLHPSVPISNDED
VDNKVERIWGDCTVRKKYSHVDLVVMVDGFEGEKGAVVAGSRGYFLKGVLVFLEQALIQYALRTLGSRGYIPIYT
PFFMRKEVMQEVAQLSQFDEELYKVIGKGSEKSDDNSYDEKYLIATSEQPIAALHRDEWLRPEDLPIKYAGLSTC
FRQEVGSHGRDTRGIFRVHQFEKIEQFVYSSPHDNKSWEMFEEMITTAEEFYQSLGIPYHIVNIVSGSLNHAASK
KLDLEAWFPGSGAFRELVSCSNCTDYQARRLRIRYGQTKKMMDKVEFVHMLNATMCATTRTICAILENYQTEKGI
TVPEKLKEFMPPGLQELIPFVKPAPIEQEPSKKQKKQHEGSKKKAAARDVTLENRLQNMEVTDA

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320/6881 FIGURE 300

CAGAGTGCCCTTTCTCCCCGCCTCTCCCCGGGAGCTGCCAGTACTTGACGTGGCGTCACCGCCCTCTAC CCTCGCTTTGCGTGCGTGTTTGCGTACAGCGGAGGTGGCGCGCGGGCAGGTCGGAGCTCGGAGCTGCTGCTTCT GGTTCTCTTGTGGCCACCGTCGCTGTCCGGCTGCCTTGGGCTGCCGAACAGACAAGGCGTGGGCCACAGCACCTC AGAAGCCGACGCAGCTCGACGCAGGGGCCGGCAGGAGGGTGGGCGATCGCGTGTCGGAGGGCCCCGCGCGGGCAG TGCCTGACGCGATGCCGCTGCCCGGGGTCGGGGAGGAGCTGAAGCAGGCCAAGGAGATCGAGGACGCCGAGAAGT ACTCCTTCATGGCCACCGTCACCAAGGCGCCCAAGAAGCAAATCCAGTTTGCTGATGACATGCAGGAGTTCACCA CTGCATCCTACACAGATAGCTCTGATGATGAGGTTTCTCCCCGAGAGAAGCAGCAAACCAACTCCAAGGGCAGCA GCAATTTCTGTGTGAAGAACATCAAGCAGGCAGAATTTGGACGCCGGGAGATTGAGATTGCAGAGCAAGACATGT CTGCTCTGATTTCACTCAGGAAACGTGCTCAGGGGGAGAAGCCCTTGGCTGGTGCTAAAATAGTGGGCTGTACAC ACATCACAGCCCAGACAGCGGTGTTGATTGAGACACTCTGTGCCCTGGGGGGCTCAGTGCCGCTGGTCTGCTTGTA ACATCTACTCAACTCAGAATGAAGTAGCTGCAGCACTGGCTGAGGCTGGAGTTGCAGTGTTCGCTTGGAAGGGCG ATGATGGGGGAGACTTAACCCACTGGGTTTATAAGAAGTATCCAAACGTGTTTAAGAAGATCCGAGGCATTGTGG AAGAGAGCGTGACTGGTGTTCACAGGCTGTATCAGCTCTCCAAAGCTGGGAAGCTCTGTGTTCCGGCCATGAACG ${\tt TCAATGATTCTGTTACCAAACAGAAGTTTGATAACTTGTACTGCTGCCGAGAATCCATTTTGGATGGCCTGAAGA}$ GGACCACAGATGTGATGTTTGGTGGGAAACAAGTGGTGGTGTGTGGCTATGGTGAGGTAGGCAAGGGCTGCTGTG CTGCTCTCAAAGCTCTTGGAGCAATTGTCTACATTACCGAAATCGACCCCATCTGTGCTCTGCAGGCCTGCATGG ATGGGTTCAGGGTGGTAAAGCTAAATGAAGTCATCCGGCAAGTCGATGTCGTAATAACTTGCACAGGAAATAAGA ATGTAGTGACACGGGAGCACTTGGATCGCATGAAAAACAGTTGTATCGTATGCAATATGGGCCACTCCAACACAC AAATCGATGTGACCAGCCTCCGCACTCCGGAGCTGACGTGGGAGCGAGTACGTTCTCAGGTGGACCATGTCATCT GGCCAGATGGCAAACGAGTTGTCCTCCTGGCAGAGGGTCGTCTACTCAATTTGAGCTGCTCCACAGTTCCCACCT TTGTTCTGTCCATCACAGCCACAACACGGCTTTGGCACTGATAGAACTCTATAATGCACCCGAGGGGCGATACA AGCAGGATGTGTACTTGCTTCCTAAGAAAATGGATGAATACGTTGCCAGCTTGCATCTGCCATCATTTGATGCCC ACCTTACAGAGCTGACAGATGACCAAGCAAAATATCTGGGACTCAACAAAAATGGGCCATTCAAACCTAATTATT ACAGATACTAATGGACCATACTACCAAGGACCAGTCCACCTGAACCACACTCTAAAGAAATATTTTTTAAGAT AACTTTTATTTCTTCTTACTCCTTTCCTCTTGATTTTTTTCCTATAATTTCATTCTTGTTTTTTCATCTCATTA TCCAAGTTCTGCAGACCACACAGGAACTTGCTTCATGGCTCTTTAGATGAAATAGAAGTTCAGGGTCCCTCACTC TAGTCACTAAAGAAGGATTTTACTCCCCCAGCCCAGAAAGGTGATTCTTCTCTTTACCATTTCTGGGGACTTTAG TCTTAATTAGGTACCTTATTAACAGGAAATGCTAAGGTACCTTCTCTGTGGAACAATCTGCAATGTCTAAATCGC CTTAAAAGAGCCCATTTCTTAGCTGCTGAAATCAGTGCTCTTTCACTTCTTCAGAGAAGCAGGGATGGTACCTAC CCGGCAGGTAGGTTAGATGTGGGTGGTGCATGTTAATTTCCCTTAGAAGTTCCAAGCCCTGTTTCCTGCGTAAAG GTGGTATGTCCAGTTCAGAGATGTGTATAATGAGCATGGCTTGTTAAGATCAGGAGGCCCACTTGGATTTATAGT ATAGCCCTTCCTCCACTCCACCAGACTTGCTCATTTTTCGAGTTTTTAACTAGACTACACTCTATTTGAGTTTA

321/6881 FIGURE 301

MSMPDAMPLPGVGEELKQAKEIEDAEKYSFMATVTKAPKKQIQFADDMQEFTKFPTKTGRRSLSRSISQSSTDSY SSAASYTDSSDDEVSPREKQQTNSKGSSNFCVKNIKQAEFGRREIEIAEQDMSALISLRKRAQGEKPLAGAKIVG CTHITAQTAVLIETLCALGAQCRWSACNIYSTQNEVAAALAEAGVAVFAWKGESEDDFWWCIDRCVNMDGWQANM ILDDGGDLTHWVYKKYPNVFKKIRGIVEESVTGVHRLYQLSKAGKLCVPAMNVNDSVTKQKFDNLYCCRESILDG LKRTTDVMFGGKQVVVCGYGEVGKGCCAALKALGAIVYITEIDPICALQACMDGFRVVKLNEVIRQVDVVITCTG NKNVVTREHLDRMKNSCIVCNMGHSNTEIDVTSLRTPELTWERVRSQVDHVIWPDGKRVVLLAEGRLLNLSCSTV PTFVLSITATTQALALIELYNAPEGRYKQDVYLLPKKMDEYVASLHLPSFDAHLTELTDDQAKYLGLNKNGPFKP NYYRY

322/6881 FIGURE 302A

GCTTATGGCGGCGCTGGAGAGGGGGCGCTGAGCTGTTGGGTATGAAGTGTAACAGAACAGACTTTACCACCTGAA ACTGCTGCTTCAAGTTCAGATCAGGCAAGGAACAAACCTCGTAACAACTAACAAGACCAAAGAAGAGAGTACACTTA AGTTGAAGACACACACTTGATCTGAAACAAGAGTTTGTGCCTACTCAACAGCTTTGAAAGAGCACTTCCCAAC GCTGCTAGTAGTCTTTGTTTTCTTCAGTGCTGTACTGTGAGATTGCCCGGTACAGCAGCAGTTGTATTCTTTATT AGCTTGGTAGATCATTTTCTCTCGCTCTTTTTTTTAATACTAGCAACTTTCATCCTTTGAAACGTGTGCTGAAAA AGAAGAATCAGCAAATACTACTGAAAGTGCAATATTTGAGTATCACTGCGAGATGAGCTTTGATCCAAACCTTCT CCACAACAATGGACATAATGGGTACCCTAATGGTACTTCAGCAGCACTGCGTGAAACTGGGGTTATTGAAAAACT GTTAACCTCTTACGGATTTATTCAGTGTTCAGAACGTCAAGCTAGACTTTTCTTCCACTGTTCACAGTATAATGG CAACCTGCAAGACTTAAAAGTAGGAGATGATGTTGAATTTGAAGTATCATCGGACCGACGGACTGGGAAACCCAT TCCTCACAACTTAGAGAGTAAATCTCCAGCTGCCCCGGGTCAGAGTCCAACAGGGAGTGTATGCTACGAACGTAA TGGGGAAGTGTTTTATCTGACTTACACCCCTGAAGATGTCGAAGGGAACGTTCAGCTGGAAACTGGAGATAAAAT AAACTTTGTAATTGATAACAATAAACATACTGGTGCTGTAAGTGCTCGCAACATTATGCTGTTGAAAAAGAAACA AGCCCGCTGTCAGGGAGTAGTTTGTGCCATGAAGGAGGCATTTGGCTTTATTGAAAGAGGTGATGTTGTAAAAGA GATATTCTTTCACTATAGTGAATTTAAGGGTGACTTAGAAACCTTACAGCCTGGCGATGATGTGGAATTCACAAT CAAGGACAGAAATGGTAAAGAAGTTGCAACAGATGTCAGACTATTGCCTCAAGGAACAGTCATTTTTGAAGATAT CAGCATTGAACATTTTGAAGGAACTGTAACCAAAGTTATCCCAAAAGTACCCAGTAAAAACCAGAATGACCCATT GCCAGGACGCATCAAAGTTGACTTTGTGATCCCTAAAGAACTTCCCTTTGGAGACAAAGATACGAAATCCAAGGT TATAGAAGTTCTGTCAAATACATTTCAGTTCACTAATGAAGCCCGAGAAATGGGTGTGATTGCTGCCATGAGAGA TGGTTTTGGTTTCATCAAGTGTGTGGATCGTGATGTTCGTATGTTCTTCCACTTCAGTGAAATTCTGGATGGGAA CCAGCTCCATATTGCAGATGAAGTAGAGTTTACTGTGGTTCCTGATATGCTCTCTGCTCAAAGAAATCATGCTAT AAAAGAAGCCACTTTTTCCAATCCTAAAACCACTAGCCCAAATAAAGGCAAAGAAGAAGGAGGCTGAGGATGGCAT TATTGCTTATGATGACTGTGGGGTGAAACTGACTATTGCTTTTCAAGCCAAGGATGTGGAAGGATCTACTTCTCC TCAAATAGGAGATAAGGTTGAATTTAGTATTAGTGACAAACAGAGGCCTGGACAGCAGGTTGCAACTTGTGTGCG ACTTTTAGGTCGTAATTCTAACTCCAAGAGGCTCTTGGGTTATGTGGCAACTCTGAAGGATAATTTTGGATTTAT TGAAACAGCCAATCATGATAAGGAAATCTTTTTCCATTACAGTGAGTTCTCTGGTGATGTTGATAGCCTGGAACT GGGGGACATGGTCGAGTATAGCTTGTCCAAAGGCAAAGGCAACAAGTCAGTGCAGAAAAAGTGAACAAAACACA CTCAGTGAATGGCATTACTGAGGAAGCTGATCCCACCATTTACTCTGGCAAAGTAATTCGCCCCCTGAGGAGTGT TGATCCAACAGACTGAGTACCAAGGAATGATTGAGATTGTGGAGGAGGGCGATATGAAAGGTGAGGTCTATCC ATTTGGCATCGTTGGGATGGCCAACAAAGGGGATTGCCTGCAGAAAGGGGAGAGCGTCAAGTTCCAATTGTGTGT CCTGGGCCAAAATGCACAAACTATGGCTTACAACATCACACCCCTGCGCAGGGCCACAGTGGAATGTGTGAAAGA TCAGTTTGGCTTCATTAACTATGAAGTAGGAGATAGCAAGAAGCTCTTTTTCCATGTGAAAGAAGTTCAGGATGG CATTGAGCTACAGGCAGGAGATGAGGTGGAGTTCTCAGTGATTCTTAATCAGCGCACTGGCAAGTGCAGCGCCTG GAATATCACTCTGGATGATGCCAGTGCTCCTCGCCTAATGGTTCTTCGTCAGCCAAGGGGACCAGATAACTCAAT GGGGTTTGGTGCAGAAAGAAGATCCGTCAAGCTGGTGTCATTGACTAACCACATCCACAAAGCACACCATTAAT AGAAAACCATTTTAAATAATGCACAGTTGCAGCCTGGAAAAACTTAAGGTGGCGCCTTATAGTATCAATTTTAGG AGCTTTATTTGGTGCATTTAACGCAACTGGTAATTGCAGAATCCACTTTGCCTGTGTAAGTGAAAAATATAGACT GTTCTGCCTTAGCACTCAGTTGCATTCTTTTCCTTTTTCTTCCTGTTCATTATGCTTTAATTCTGAGGACCATAT GAGGGTAGAATATTATCTTTTAAAAATTACAAAAATTTGTATAGGCAAACCATTTCTTAAAGTTGATGGCCAA ATTTTAAAATGTTATTTTTCATATCATTTATAATCTTGTCACAATCCACTTAAAGAAGTTTGGTTATATTTCAGT

323/6881 FIGURE 302B

324/6881 FIGURE 303

MSFDPNLLHNNGHNGYPNGTSAALRETGVIEKLLTSYGFIQCSERQARLFFHCSQYNGNLQDLKVGDDVEFEVSS
DRRTGKPIAVKLVKIKQEILPEERMNGQVVCAVPHNLESKSPAAPGQSPTGSVCYERNGEVFYLTYTPEDVEGNV
QLETGDKINFVIDNNKHTGAVSARNIMLLKKKQARCQGVVCAMKEAFGFIERGDVVKEIFFHYSEFKGDLETLQP
GDDVEFTIKDRNGKEVATDVRLLPQGTVIFEDISIEHFEGTVTKVIPKVPSKNQNDPLPGRIKVDFVIPKELPFG
DKDTKSKVTLLEGDHVRFNISTDRRDKLERATNIEVLSNTFQFTNEAREMGVIAAMRDGFGFIKCVDRDVRMFFH
FSEILDGNQLHIADEVEFTVVPDMLSAQRNHAIRIKKLPKGTVSFHSHSDHRFLGTVEKEATFSNPKTTSPNKGK
EKEAEDGIIAYDDCGVKLTIAFQAKDVEGSTSPQIGDKVEFSISDKQRPGQQVATCVRLLGRNSNSKRLLGYVAT
LKDNFGFIETANHDKEIFFHYSEFSGDVDSLELGDMVEYSLSKGKGNKVSAEKVNKTHSVNGITEEADPTIYSGK
VIRPLRSVDPTQTEYQGMIEIVEEGDMKGEVYPFGIVGMANKGDCLQKGESVKFQLCVLGQNAQTMAYNITPLRR
ATVECVKDQFGFINYEVGDSKKLFFHVKEVQDGIELQAGDEVEFSVILNQRTGKCSACNVWRVCEGPKAVAAPRP
DRLVNRLKNITLDDASAPRLMVLRQPRGPDNSMGFGAERKIRQAGVID

325/6881 FIGURE 304

326/6881 FIGURE 305

 ${\tt MGATLKIMLDNTYMKKCDENILWLDYKNICKVMEVGSKIYVDDGLISLQVKQKGADFLVTEVETGGSSGSKKGVNLPGAAVDLPAVSEDIQDLNFGVEQDVDMVFASFIRKASDVHEVREALGEKGKKTLHPPPSIFPHYCSTSGPVAIEPTCISINNS$

327/6881 FIGURE 306

AGAAGAAGCTGGCCAAGGATATGGGAGCAACCACCATGGACCAGAAGTCTCTCTGGGCAGGTGTAGTGGTCTTGC TGCTTCTCCAGGGAGGATCTGCCTACAAACTGGTTTGCTACTTTACCAACTGGTCCCAGGACCGGCAGGAACCAG AACTGAAAATTCTCTTGTCCATTGGAGGGTACCTGTTTGGTTCCAAAGGGTTCCACCCTATGGTGGATTCTTCTA CATCACGCTTGGAATTCATTAACTCCATAATCCTGTTTCTGAGGAACCATAACTTTGATGGACTGGATGTAAGCT GGATCTACCCAGATCAGAAAGAAACACTCATTTCACTGTGCTGATTCATGAGTTAGCAGAAGCCTTTCAGAAGG GCTATCAAGTTGAGAAACTGGCAAAAGATCTGGATTTCATCAACCTCCTGTCCTTTGACTTCCATGGGTCTTGGG AAAAGCCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGTGGCAGGACAGAGGGCCCAAGCTCCTACTACA ATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAATGCCATCAGAGAAGGTGGTCATGGGCATCCCCACAT ATGGGCACTCCTTCACACTGGCCTCTGCAGAAACCACCGTGGGGGCCCCTGCCTCTGGCCCTGGAGCTGCTGGAC CCATCACAGAGTCTTCAGGCTTCCTGGCCTATTATGAGATCTGCCAGTTCCTGAAAGGAGCCAAGATCACGCGCC ${\tt CCAAGGTTCAGTTCTTAAAGAATTTAAACCTGGGAGGAGCCATGATCTGGTCTATTGACATGGATGACTTCACTG}$ GCAAATCCTGCAACCAGGGCCCTTACCCTCTTGTCCAAGCAGTCAAGAGAAGCCTTGGCTCCTTG<u>TGA</u>AGGATTA ${\tt ACTTACAGAGAGCAGGCAAGATGACCTTGCTGCCTGGGGGCCTGCTCTCCCCAGGAATTCTCATGTGGGATTCC}$ CCTTGCCAGGCTGGCCTTTGGATCTCTCTTCCAAGCCTTTCCTGACTTCCTCTTAGATCATAGATTGGACCTGGT

328/6881 FIGURE 307

MDQKSLWAGVVVLLLLQGGSAYKLVCYFTNWSQDRQEPGKFTPENIDPFLCSHLIYSFASIENNKVIIKDKSEVM
LYQTINSLKTKNPKLKILLSIGGYLFGSKGFHPMVDSSTSRLEFINSIILFLRNHNFDGLDVSWIYPDQKENTHF
TVLIHELAEAFQKDFTKSTKERLLLTAGVSAGRQMIDNSYQVEKLAKDLDFINLLSFDFHGSWEKPLITGHNSPL
SKGWQDRGPSSYYNVEYAVGYWIHKGMPSEKVVMGIPTYGHSFTLASAETTVGAPASGPGAAGPITESSGFLAYY
EICQFLKGAKITRLQDQQVPYAVKGNQWVGYDDVKSMETKVQFLKNLNLGGAMIWSIDMDDFTGKSCNQGPYPLV
QAVKRSLGSL

329/6881 FIGURE 308

GGGGAGACTTGTGAGCGGCCATCTTGGTCCTGCCCTGACAGATTCTCCTATCGGGGTCACAGGGACGCTAAGATT GCTACCTGGACTTTCGTTGACC<u>ATG</u>CTGTCCCGGGTGGTACTTTCCGCCGCCCCACAGCGGCCCCCTCTCTGAA GAATGCAGCCTTCCTAGGTCCAGGGGTATTGCAGGCAACAAGGACCTTTCATACAGGGCAGCCACACCTTGTCCC TGTACCACCTCTTCCTGAATACGGAGGAAAAGTTCGTTATGGACTGATCCCTGAGGAATTCTTCCAGTTTCTTTA TCCTAAAACTGGTGTAACAGGACCCTATGTACTCGGAACTGGGCTTATCTTGTACGCTTTATCCAAAGAAATATA TGTGATTAGCGCAGAGACCTTCACTGCCCTATCAGTACTAGGTGTAATGGTCTATGGAATTAAAAAATATGGTCC CTTTGTTGCAGACTTTGCTGATAAACTCAATGAGCAAAAACTTGCCCAACTAGAAGAGGCGAAGCAGGCTTCCAT CCAACACATCCAGAATGCAATTGATACGGAGAAGTCACAACAGGCACTGGTTCAGAAGCGCCATTACCTTTTTGA AAAGAATCGCCTGGACTATCATATATCTGTGCAGAACATGATGCGTCGAAAGGAACAAGAACACATGATAAATTG GGTGGAGAAGCACGTGGTGCAAAGCATCTCCACACAGCAGGAAAAGGAGACAATTGCCAAGTGCATTGCGGACCT AGTTGACTGACTAAATGGAAACTAGTCTATTTGACAAAGTCTTTCTGTGTTGGTGTCTACTGAAGTTATAGTTTA CCCTTCCTAAAAATGAAAAGTTTGTTTCATATAGTGAGAGAACGAAATCTCTATCGGCCAGTCAGATGTTTCTCA TCCTTCTTGCTCTGCCTTTGAGTTGTTCCGTGATCACTTCTGAATAAGCAGTTTGCCTTTATAAAAACTTGCTGC CTGACTAAAGATTAACAGGTTATAGTTTAAATTTGTAATTCACCATCTTGCAATAAAGTGACAATTGAAT AAAAAAAAAAAAAAAAAAAAAAAAAAA

330/6881 FIGURE 309

MLSRVVLSAAATAAPSLKNAAFLGPGVLQATRTFHTGQPHLVPVPPLPEYGGKVRYGLIPEEFFQFLYPKTGVTG
PYVLGTGLILYALSKEIYVISAETFTALSVLGVMVYGIKKYGPFVADFADKLNEQKLAQLEEAKQASIQHIQNAI
DTEKSQQALVQKRHYLFDVQRNNIAMALEVTYRERLYRVYKEVKNRLDYHISVQNMMRRKEQEHMINWVEKHVVQ
SISTQQEKETIAKCIADLKLLAKKAQAQPVM

331/6881 FIGURE 310

GCGGGGAGCCGGAGCGCAGTTTCCAGTGGGGCCGGGGTTTCACCCGGGCCCTCTCTGTTTGAACCGAACC CCATGAAGGAGGTGGGTGATGGCTTACAGGATCAGATGAACTGCATGATGGGTGCACTGCAAGAACTGAAGCTCC TCCAGGTGCAGACAGCACTGGAACAGCTGGAGATCTCTGGAGGGGGGTCCTGTGCCAGGCAGCCCTGAAGGTCCCA ${\tt GGACCCAGTGCGAGCACCCTTGTTGGGAGGGTGGCAGAGTCCTGCCAGGCCCACAGTCTGTTCCCCCTCCAGTC}$ AACCTTCTCTTGGCAGCACCACGTTTCCATCCCATAGGAGTGTCTGTGGAAGGGATTTAGCCCCCTTGCCCA ${\tt GGACACAGCCACATCAAAGCTGTGCTCAGCAGGGGCCAGAGCGAGTGGAACCGGATGACTGGACCTCCACGTTGA}$ TGTCCCGGGGCCGGAATCGACAGCCTCTGGTGTTAGGGGACAACGTTTTTGCAGACCTGGTGGGCAATTGGCTAG AGCCCCAGGAGCTGGGCCGCAGGTTCGCCCTGACAGCAAACATCTTTAAGAAGTTCTTGCGTAGTGTGCGGCCTG ${\tt ACCGTGACCGGCTGAAGGAAGCCAGGCTGGGTGACACCCATGGTCCCTGAGTCCCGAACCGGCCGCTCAC}$ AGAAGGTCAAGAAGCGGAGCCTTTCCAAGGGCTCTGGACATTTCCCCTTCCCAGGCACCGGGGAGCACAGGCGAG GGGAGAATCCCCCCACAAGCTGCCCCAAGGCCCTGGAGCACTCACCCTCAGGATTTGATATTAACACAGCTGTTT GGGTC<u>TGA</u>ATCCTAGAGACAGAAAGTTGACTGAGCCTGAAAGGGCCAGGTCCCAGTGCTGGGCCCCTGGGGAGGA GGGAGGGTGGGCGGTATGGCTCTCGAAAGCCCAACTCCAAGTTCCTTTCCCCCAGAAAGCCGGGGAGAAGCCAGAG TTCTTGGCTCAGGACTGAAGGGAAGGTTGTGGGAGAGGCTGTCTTGGGGGCTAGCTGGTGGAGGAGGTAAGAGT TGGGGCTGGAGGTGACAGTAGGTGAGGGCAGAGGAGGAGATCAGAAAATCCCTCTGACATCTCCACTGCCCCCAA AGACCTCCGTTGAACATTCTGTATGGAAAAGAGCCCTGGAGCATCAGGTTCCCCAGATAGGCCCCCAAATAAAGA CCTGTCTATGGCTCTCCCAA

332/6881 FIGURE 311

333/6881 FIGURE 312A

GGCACGAGGCTGGGGCGCAGAGCAGCGGCGGGAGGAGGCGGACACGTGGCAACAGCGGTAGCAGCCCGGGCGGCG GCAGCAACAGCGGCGGCGCATCGGCCCGAGCCGCCGCCCCTCCCACCCTCCCGCCCCGCGCAGCCCTAGC TCCCTCCACTTGGCTCCCCTGGTCCCGCTCGCCCGGGGGGGCTGCTCTGTGCTTTTCTCTCTGATTCTCCAGC GACAGGACCCGGCGCCGGGCACTGAGCACCGCCACC<u>ATG</u>GGGAAGGGGGTTGGACGTGATAAGTATGAGCCTGCA GTTTCTATGGATGATCATAAACTTAGCCTTGATGAACTTCATCGTAAATATGGAACAGACTTGAGCCGGGGATTA ACATCTGCTCGTGCAGCTGAGATCCTGGCGCGAGATGGTCCCAACGCCCTCACTCCCCCTCCCACTACTCCTGAA TGGATCAAGTTTTGTCGGCAGCTCTTTGGGGGGTTCTCAATGTTACTGTGGATTGGAGCGATTCTTTGTTTCTTG GCTTATAGCATCCAAGCTGCTACAGAAGAGGAACCTCAAAACGATAATCTGTACCTGGGTGTGGTGCTATCAGCC GTTGTAATCATAACTGGTTGCTTCTCCTACTATCAAGAAGCTAAAAGTTCAAAGATCATGGAATCCTTCAAAAAC ATGGTCCCTCAGCAAGCCCTTGTGATTCGAAATGGTGAGAAAATGAGCATAAATGCGGAGGAAGTTGTGGTTGGG GATCTGGTGGAAGTAAAAGGAGGAGACCGAATTCCTGCTGACCTCAGAATCATATCTGCAAATGGCTGCAAGGTG GATAACTCCTCGCTCACTGGTGAATCAGAACCCCAGACTAGGTCTCCAGATTTCACAAATGAAAACCCCCTGGAG ACGAGGAACATTGCCTTCTTTTCAACCAATTGTGTTGAAGGCACCGCACGTGGTATTGTTGTCTACACTGGGGAT CGCACTGTGATGGGAAGAATTGCCACACTTGCTTCTGGGCTGGAAGGAGGCCAGACCCCCATTGCTGCAGAAATT GAGTACACCTGGCTTGAGGCTGTCATCTTCCTCATCGGTATCATCGTAGCCAATGTGCCGGAAGGTTTGCTGGCC ACTGTCACGGTCTGTCTGACACTTACTGCCAAACGCATGGCAAGGAAAAACTGCTTAGTGAAGAACTTAGAAGCT GTGGAGACCTTGGGGTCCACATCCACCATCTGCTCTGATAAAACTGGAACTCTGACTCAGAACCGGATGACAGTG GCCCACATGTGGTTTGACAATCAAATCCATGAAGCTGATACGACAGAGAATCAGAGTGGTGTCTCTTTTGACAAG ACTTCAGCTACCTGGCTTGCTCTGTCCAGAATTGCAGGTCTTTGTAACAGGGCAGTGTTTCAGGCTAACCAGGAA AACCTACCTATTCTTAAGCGGGCAGTTGCAGGAGATGCCTCTGAGTCAGCACTCTTAAAGTGCATAGAGCTGTGC TGTGGTTCCGTGAAGGAGATGAGAGAAAGATACGCCAAAATCGTCGAGATACCCTTCAACTCCACCAACAAGTAC CAGTTGTCTATTCATAAGAACCCCAACACTCAGAGCCCCAACACCTGTTGGTGATGAAGGGCCCCCAGAAAGG ATCCTAGACCGTTGCAGCTCTATCCTCCTCCACGGCAAGGAGCAGCCCCTGGATGAGGAGCTGAAAGACGCCTTT CAGAACGCCTATTTGGAGCTGGGGGGCCTCGGAGAACGAGTCCTAGGTTTCTGCCACCTCTTTCTGCCAGATGAA CAGTTTCCTGAAGGGTTCCAGTTTGACACTGACGATGTGAATTTCCCTATCGATAATCTGTGCTTTGTTGGGCTC ATCTCCATGATTGACCCTCCACGGGCGGCCGTTCCTGATGCCGTGGGCAAATGTCGAAGTGCTGGAATTAAGGTC ATCATGGTCACAGGAGACCATCCAATCACAGCTAAAGCTATTGCCAAAGGTGTGGGCATCATCTCAGAAGGCAAT GAGACCGTGGAAGACATTGCTGCCCGCCTCAACATCCCAGTCAGCCAGGTGAACCCCAGGGATGCCAAGGCCTGC GTAGTACACGGCAGTGATCTAAAGGACATGACCTCCGAGCAGCTGGATGACATTTTGAAGTACCACACTGAGATA GTGTTTGCCAGGACCTCCCCTCAGCAGAAGCTCATCATTGTGGAAGGCTGCCAAAGACAGGGTGCTATCGTGGCT GTGACTGGTGACGGTGTGAATGACTCTCCAGCTTTGAAGAAAGCAGACATTGGGGTTGCTATGGGGATTGCTGGC TCAGATGTGTCCAAGCAAGCTGCTGACATGATTCTTCTGGATGACAACTTTGCCTCAATTGTGACTGGAGTAGAG GAAGGTCGTCTGATCTTTGATAACTTGAAGAAATCCATTGCTTATACCTTAACCAGTAACATTCCCGAGATCACC CCGTTCCTGATATTTATTATTGCAAACATTCCACTACCACTGGGGACTGTCACCATCCTCTGCATTGACTTGGGC ACTGACATGGTTCCTGCCATCTCCCTGGCTTATGAGCAGGCTGAGAGTGACATCATGAAGAGACAGCCCAGAAAT CCCAAAACAGACAAACTTGTGAATGAGCGGCTGATCAGCATGGCCTATGGGCAGATTGGAATGATCCAGGCCCTG GGAGGCTTCTTTACTTACTTGTGATTCTGGCTGAGAACGGCTTCCTCCCAATTCACCTGTTGGGCCTCCGAGTG GACTGGGATGACCGCTGGATCAACGATGTGGAAGACAGCTACGGGCAGCAGTGGACCTATGAGCAGAAGAAAATC GTGGAGTTCACCTGCCACACAGCCTTCTTCGTCAGTATCGTGGTGGTGCAGTGGGCCGACTTGGTCATCTGTAAG ACCAGGAGGAATTCGGTCTTCCAGCAGGGGATGAAGAACAAGATCTTGATATTTGGCCTCTTTGAAGAGACAGCC TTCTGTGCCTTCCCCTACTCTCTCTCTCTCTTCTTATTGACGAAGTCAGAAAACTCATCATCAGGCGACGCCCT GGCGGCTGGGTGGAGAAGGAAACCTACTAT<u>TAG</u>CCCCCCGTCCTGCACGCCGTGGAGCATCAGGCCACACACTCT GCATCCGACACCCACCCCTCTTTGTGTACTTCAGTCTTGGAGTTTGGAACTCTACCCTGGTAGGAAAGCACCGC

334/6881 FIGURE 312B

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MGKGVGRDKYEPAAVSEQGDKKGKKGKKDRDMDELKKEVSMDDHKLSLDELHRKYGTDLSRGLTSARAAEILARD
GPNALTPPPTTPEWIKFCRQLFGGFSMLLWIGAILCFLAYSIQAATEEEPQNDNLYLGVVLSAVVIITGCFSYYQ
EAKSSKIMESFKNMVPQQALVIRNGEKMSINAEEVVVGDLVEVKGGDRIPADLRIISANGCKVDNSSLTGESEPQ
TRSPDFTNENPLETRNIAFFSTNCVEGTARGIVVYTGDRTVMGRIATLASGLEGGQTPIAAEIEHFIHIITGVAV
FLGVSFFILSLILEYTWLEAVIFLIGIIVANVPEGLLATVTVCLTLTAKRMARKNCLVKNLEAVETLGSTSTICS
DKTGTLTQNRMTVAHMWFDNQIHEADTTENQSGVSFDKTSATWLALSRIAGLCNRAVFQANQENLPILKRAVAGD
ASESALLKCIELCCGSVKEMRERYAKIVEIPFNSTNKYQLSIHKNPNTSEPQHLLVMKGAPERILDRCSSILLHG
KEQPLDEELKDAFQNAYLELGGLGERVLGFCHLFLPDEQFPEGFQFDTDDVNFPIDNLCFVGLISMIDPPRAAVP
DAVGKCRSAGIKVIMVTGDHPITAKAIAKGVGIISEGNETVEDIAARLNIPVSQVNPRDAKACVVHGSDLKDMTS
EQLDDILKYHTEIVFARTSPQQKLIIVEGCQRQGAIVAVTGDGVNDSPALKKADIGVAMGIAGSDVSKQAADMIL
LDDNFASIVTGVEEGRLIFDNLKKSIAYTLTSNIPEITPFLIFIIANIPLPLGTVTILCIDLGTDMVPAISLAYE
QAESDIMKRQPRNPKTDKLVNERLISMAYGQIGMIQALGGFFTYFVILAENGFLPHHLLGLRVDWDDRWINDVED
SYGQQWTYEQRKIVEFTCHTAFFVSIVVVQWADLVICKTRRNSVFQQGMKNKILIFGLFEETALAAFLSYCPGMG
VALRMYPLKPTWWFCAFPYSLLIFVYDEVRKLIIRRRPGGWVEKETYY

336/6881 FIGURE 314A

TTCCAAAACTGTTCTCTGGAGCTATAAGTGGATTGCCAGAAATGAGAGATTAGGAGCTGGGAGAAGAGGAAGCGC GTGGTGTCAGCACAGCGGCAGGTCACCGTTCAGGAAGGACCCTTGTACCGCACGGAGGGCTCCCACATCACTATC TGGTGCAATGTGAGTGGCTACCAGGGACCTTCTGAGCAGAATTTCCAGTGGTCCATTTACCTGCCTTCGTCGCCA GGGAAGATCTTCATAGAAAGAGTCCAGGGGAACTCAACCCTATTGCACATCACAGATCTTCAGGCCCGGGATGCC GGGGAGTATGAATGCCACACCCCAGCACTGATAAGCAATACTTTGGGAGTTACAGTGCAAAGATGAACCTAGTG GTGATCCCAGACTCCCTGCAGACCACTGCCCATGCCCCAGACTCTGCACAGAGTGGAGCAGGACCCGCTGGAGCTC AAGCCCGTGGAGGTCATCTCCCTGAGCCGAGATTTCATGCTTCACTCCAGCAGCGAATATGCCCAGAGGCAGAGC CAGGGCGAATTCTACTGCGAGGCCGCCGAGTGGATCCAGGATCCGGATGGGTCGTGGTATGCTATGACCCGAAAG CGTTCCGAGGGAGCCGTGGTCAACGTCCAGCCAACTGACAAAGAATTCACTGTTCGGCTGGAGACAGAAAGCGG CTGCACACGGTGGGCGAGCCGGTGGAGTTCAGATGCATCCTGGAGGCTCAGAATGTTCCCGACCGTTACTTTGCT GTCTCCTGGGCCTTCAACAGCTCGCTCATCGCCACCATGGGTCCTAACGCTGTGCCTGTCCTCAACAGCGAATTT GCTCACCGGGAAGCCAGGGGACAGCTTAAGGTGGCCAAAGAGACGGCGACAGTGTCTTTGTGCTGAAGATCTACCAC CTCCGCCAGGAAGATAGCGGGAAATACAACTGCCGGGTGACTGAGCGAGAAAAACCGTGACCGGGGAATTCATT GATAAGGAGAGCAAGCGTCCCAAGAACATCCCCATCATAGTCCTCCCCTCAAGAGCAGCATCTCCGTGGAGGTG CAGGGTCGCTTCTCTGTCATCTGGCAGCTTGTGGACAGGCAGAACCGCCGCAGCAATATCATGTGGCTAGACCGG GATGGCACCGTGCAGCCAGGCTCGTCCTACTGGGAGCGCAGCAGCTTTGGGGGGCGTCCAGATGGAGCAGGTGCAG TGGGTGCGGGCAGTGGCGAGTGGCAGATTGTTGGGGAGCGCCGGGCCAGCACTCCCATCTCATCACAGCT TGTATCATCAAACCCCACTACCCTGGGTCCCCGTGTCGGTGACATGGCGGTTCCAGCCGGTGGCCACGGTG GAGTTCCATGACTTGGTGACCTTCACCCGGGACGGGGGGGTCCAGTGGGGGGGACAGGTCCTCCAGCTTCCGAACC CGAACTGCCATCGAGAAGGCTGAGTCCAGCAACAACGTCCGCCTAAGCATCAGCCGAGCCAGTGACACGGAAGCA GGCAAGTACCAGTGTGGCAGAGCTGTGGCGGAAGAACTACAACAACACCTGGACGCGACTGGCGGAGAGGACC TCCAACCTGCTGGAGATCAGGGTGCTGCAGCCAGTGAGAAAGCTGCAGGTGAGCAAATCGAAGAGGACCCTCACC CTGGTGGAAAACAAGCCCATTCAGTTGAACTGCTCAGTCAAGTCTCAGACTAGCCAGAACTCCCACTTTGCGGTG TACGGTACTTACGCCGAGGAGGAGGGCCTGAGAGCCAGGCTCCAGTTTGAGAGGCATGTGTCGGGGGGGCCTGTTC AGCCTCACCGTCCAGAGAGCCGAGGTCAGCGACAGCGGCAGCTACTACTGCCACGTGGAGGAGTGGCTGAGC CCCAACTACGCCTGGTACAAGCTGGCAGAGGAGGTTTCTGGGCGCACAGAAGTCACTGTGAAACAGCCAGACAGC CTCAACCGCACCAGCATAACCTCCCAGCTCATGGTGGAATGGTTTGTATGGAAGCCCAACCACCCTGAGCGGGAG ACTGTGGCCCGCTTGAGCCGTGACGCCACCTTCCACTATGGAGAGCAGCCAAGAACAATCTGAAGGGGCGG CTGCATTTGGAGAGTCCTTCCCCCGGCGTGTACCGTCTCTTCATCCAGAACGTGGCTGTGCAGGACAGCGGGACC TACAGCTGCCATGTGGAGGAGTGGCTGCCCAGCCCCAGTGGCATGTGGTATAAGCGGGCAGAGGACACCGCTGGG CAGACAGCTCTGACAGTCATGCGACCAGATGCTTCCCTGCAGGTGGACACAGTGGTCCCCAATGCCACGGTCTCT TATTCCCTGAGGACTAAAGCTGGGGGGAAAAGGAGCAGCCCTGGCCTGGAAGAACAGGAAGAGGAAAGGGAAGAGGAA ${\tt GAGGAGGAGGACGACGACGACGACCCAACAGAGCGGACGCCCTGCTGAGCGTGGGCCCAGATGCT}$ GTCTTTGGCCCAGAGGCCAGTCCTTGGGAGGGCAGGCTTCGCTTCCAGAGGCTCTCCCCGGTGCTCTACCGGCTC ACAGTGCTGCAGGCAAGCCCCCAAGATACAGGCAATTACTCCTGCCATGTGGAGGAGTGGCTGCCCAGCCCTCAG AAGGAATGGTACCGGCTGACGGAGGAGGAGTCAGCCCCCATCGGCATCCGTGTTCTAGATACAAGTCCCACCCTC CAGTCCATCATCTGCTCCAACGACGCACTCTTCTACTTCGTCTTCTTCTACCCTTTTCCCCATCTTTGGCATTCTT ATCATCACCATCCTTCTGGTGCGTTTCAAGAGCCGGAACTCCAGCAAGAACTCTGATGGGAAGAATGGGGTGCCT

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GGGGCCATAGACTAAGCGGGTGATGCCCCAGCGGATGTTGGCCACGGAGGAGCTGAGGCTCTCCCTTTCTCTGTG TGATCCTGCCATTATAGATTTCTTGTTTCTGTTTTTAGTAATGTAGTGAGTAGCTCCAGGTGCCACATCTACTCA CAGATTTATCTAGTATTCTCAGATAGATGTTACAGGGCTTCTTATTCTTTGTAATGTACTCTTTTTAAATCCCTT CTTTCTAGTGACAAGGAATCTCTTCCAAGACTTTGTTTTTTGCACATTTGAAAATGCCACCCATGGATCAAAATAT TCCCTCAGCTGGAGTTATTGGAACCACTTTGTAGTCAAGACGAAAGCACTGAATTTTGCTTCAAAGAACTGTGTA TGTACAAGAGAAATCCTGCATAACCCCATTAGGAGTAGATGGTGCCCGGCCTATCTGTCAGGGAGGCAAAAAAGG CTTCATCCCATCCTTGCCAAAAAATAAGAAAACTGTCTTGGAGAATGGGTCAGAAGCCCCAAACGGCACACTT TCCAAATTAAAGTGGGCAGGGGCTGCTTTTAGCAGCTGCTGACCTGCAGATTTGTCAAAGCCAGTGACTAGAGAA GGAAGGGAGAAAGGCTGGCTGTTGGCTTGCTCTGAGCTGCAAGGATGGTCTCTAACTGATTAACTGTGAGCAGGT ACAGTGAGGGGTGGGAGGGGGTTTCCAGGGCCTGGTGTTGGAGAGTGCAGAGAATATCTACCTCCTGGAGGT GTGAAGACTAGGTTTTTCTTCCTTCCAATTAGATTTTCCTTAATTATAGTGATGTCTTCCTTATTCATTTTT CTCTCCCTGCCTCTCACTGCCATAAGAATATCAGCCTGGGGGCAGTCCAGACGCAGCCCTTTGTCATCCTTTCTG TTTGCCTAGTCTCAGCAGACTGTGATCACAAGGCATTGTCTGTGGGATTTTTCCTTTCCCTTTCTTGATCTCTCT TGTGGTTCTAGGTTGTTTGTTCATTGTTATGGTGGCTTTTTATTTTAACGCCCCTTGAGCCCCATGATGGC TGGTGTCACCCTGTTCTTTTACACTGTTGGGCCAGGTGCTGCTTGTCCTTCTTAGGGCATCATCAATTGCAAATA TTTCCTTTTGCTCCCTTTATGAAGATGTTCTTATACCCTTGCTTTCCCATATTTTTCTGGCCAAGCATGCCATCT CCTTTACTCTGGGAACTTACATCCTGAATCCCAAGAGGGGGTCACAGTTTGGAAAAAGTCATCAGGGATTCTGGA ACTAAGTCTGATAAAAGATTCCAGTGAAGCCCTGTTCTGAGAACGAGCAGACTGCAGGGGAGGCCATGGGATTCC CCAGGCCAGTGTCTGTGCTGATCCTTCAAGGGTCTGCAGGTATGCAGGTGGCCTGGGCTGCTCGGCAGATACTTT TCCCCCAAGTATACCGTACCCTCCTGTGAGACAGTGTGTGCAGGCACCACCACCTTAATCCTGCTGTTGCCTGAC ATGCTGATTCTCATTTATTATGCTGCATCAACACATTAGAGGTACAGGAGCGGCTCAGTCATGAAAAAAGAAGGT CTTTTGCCCCATTTCTTTATTTCAGAGATGTGGGCTTTCAGTGGGAATTTGCTGACTCCTACTTTATAGGCTGAG GTAACTAAGATTTCAGTTTGAAATCTTAGATTTCAGTTCACGGCGATAAAGAAGTAGGTGCTGCACACAAATATG TAAAGCAATTGTAGGAAATTTGAAAGGAAAAAAAGAAACCGAAGCCAGTATTTTAATAATTGCTTTTTCTGTGTA TTTTGTATTGGGCTGGGGGATAGCATCAAAGGTTGAACTTTTTGAGCTTTCTATGAAAAACCCCAGGACCTTCTT GCGCATTGTCTACTGGAGCTTTAGTCTTCTGAGACGGAGGAAAACTGCTGAATACTCTGGATTCATCTATGTCTA CAATGTTGCATTTATGAAAAACTACACTGTGCTAGGCGCATTCTAGGACATGAATATGACCACACCCTCTTTCAC AGATGGGGTAAGAAAACTACCCATGCATGATGTAGAGAGCTGTTGATTTGTTTCTGTTTTTTTAAAGGAAAACTA TTTGTAAGATGTTGCACTAAAACATTTTATATACACTTCAGAGACCTGTAGTAAATTATGTTGAAAAT

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GCTCTTTGCCGAGGGCGTGTGGTGAGAGTCCCCACAGCGACCCTGGTTCGAGTGGTGGGCACTGAGCTGGTCATC CCCTGCAACGTCAGTGACTATGATGGCCCCAGCGAGCAAAACTTTGACTGGAGCTTCTCATCTTTGGGGAGCAGC TTTGTGGAGCTTGCAAGCACCTGGGAGGTGGGGTTCCCAGCCCAGCTGTACCAGGAGCGGCTGCAGAGGGGCGAG ATCCTGTTAAGGCGGACTGCCAACGACGCCGTGGAGCTCCACATAAAGAACGTCCAGCCTTCAGACCAAGGCCAC ${\tt TACAAATGTTCAACCCCCAGCACAGATGCCACTGTCCAGGGAAACTATGAGGACACAGTGCAGGTTAAAGTGCTG}$ GCCGACTCCCTGCACGTGGGCCCCAGCGCGCGCCCCCGCCGAGCCTGAGCCTGCGGGAGGGGGAGCCCTTCGAG CTGCGCTGCACCGCCGCCTCCGCCGCTGCACACGCACCTGGCGCTGCTGTGGGAGGTGCACCGCGGCCCG GCCAGGCGGAGCGTCCTCGCCCTGACCCACGAGGGCAGGTTCCACCCGGGCCTGGGGTACGAGCAGCGCTACCAC CAGGGCTCCTACAGGTGTATCGTCAGCGAGTGGATCGCCGAGCAGGCAACTGGCAGGAAATCCAAGAAAAGGCC GTGGAAGTTGCCACCGTGGTGATCCAGCCATCAGTTCTGCGAGCAGCTGTGCCCAAGAATGTGTCTGTGGCTGAA GGAAAGGAACTGGACCTGTAACATCACAACAGACCGAGCCGATGACGTCCGGCCCGAGGTGACGTGGTCC TTCAGCAGGATGCCTGACAGCACCCTACCTGGCTCCCGCGTGTTGGCGGGGCTTGACCGTGATTCCCTGGTGCAC AGCTCGCCTCATGTTGCTTTGAGTCATGTGGATGCACGCTCCTACCATTTACTGGTTCGGGATGTTAGCAAAGAA AACTCTGGCTACTATTACTGCCACGTGTCCCTGTGGGCACCCGGACACAACAGGAGCTGGCACAAAGTGGCAGAG GCCGIGTCTTCCCCAGCTGGTGTGGGTGTGACCTGGCTAGAACCAGACTACCAGGTGTACCTGAATGCTTCCAAG GTCCCCGGGTTTGCGGATGACCCCACAGAGCTGGCATGCCGGGTGGTGGACACGAAGAGTGGGGAGGCGAATGTC CGATTCACGGTTCGTGGTACTACAGGATGAACCGGCGCAGCGACAATGTGGTGACCAGCGAGCTGCTTGCAGTC ATGGACGGGGACTGGACGCTAAAATATGGAGAGGAGGAGCAGCGGGCCCAGGATGGAGACTTTATTTTTCT AAGGAACATACAGACACGTTCAATTTCCGGATCCAAAGGACTACAGAGGAAGACAGAGGCAATTATTACTGTGTT GTGTCTGCCTGGACCAAACAGCGGAACAACAGCTGGGTGAAAAGCAAGGATGTCTTCTCCAAGCCTGTTAACATA TTTGAGATGACTTGCAAAGTATCTTCCAAGAATATTAAGTCGCCACGCTACTCTGTTCTCATCATGGCTGAGAAG CCTGTCGGCGACCTCTCCAGTCCCAATGAAACGAAGTACATCATCTCTCTGGGACCAGGATTCTGTGGTGAAGCTG GAGAATTGGACAGATGCATCACGGGTGGATGGCGTTGTTTTAGAAAAAGTGCAGGAGGATGAGTTCCGCTATCGA ATGTACCAGACTCAGGTCTCAGACGCAGGGCTGTACCGCTGCATGGTGACAGCCTGGTCTCCTGTCAGGGGCAGC CTTTGGCGAGAGCAGCAACCAGTCTCTCCAATCCTATTGAGATAGACTTCCAAACCTCAGGTCCTATATTTAAT GCTTCTGTGCATTCAGACACCATCAGTAATTCGGGGAGATCTGATCAAATTGTTCTGTATCACTGTCGAG GGAGCAGCACTGGATCCAGATGACATGGCCTTTGATGTCCTGGTTTGCGGTGCACTCTTTTGGCCTGGACAAG GCTCCTGTGCTCCTGTCTCCCTGGATCGGAAGGGCATCGTGACCACCTCCCGGAGGGACTGGAAGAGCGACCTC AGCCTGGAGCGCGTGAGTGTGCTGGAATTCTTGCTGCAAGTGCATGGCTCCGAGGACCAGGACTTTGGCAACTAC TACTGTTCCGTGACTCCATGGGTGAAGTCACCAACAGGTTCCTGGCAGAAGGAGGCAGAGATCCACTCCAAGCCC GTTTTTATAACTGTGAAGATGGATGTGCTGAACGCCTTCAAGTATCCCTTGCTGATCGGCCTCGGTCTGTCCACG GTCATCGGGCTCCTGTCTCATCGGGTACTGCAGCTCCCACTGGTGTTGTAAGAAGGAGGTTCAGGAGACA ${\tt CGGCGCGAGCCCCGCAGGCTCATGTCGATGGAGATGGAC} {\tt TAG} {\tt CCTGGCCCGGGAGGGGAGTGACAGAGGGACGTT}$ CTAGGAGCAATTGGGGCAAGAAGAGGACAGTGATATTTTAAAACAAAGTGTGTTACACTAAAAACCAGTCCTCTC TAATCTCAGGTGGGACTTGGCGCTCTCTTTTCTGCATGTCAAGTTCTGAGCGCGGACATGTTTACCAGCACAC GGCTCTTCTCCCACGCCACTTTCTGATGTAACAATCGAGTGTGTTTTTCCCAACTGCAGCTTTTTAATGGTTA GACCTGTGCCGAAGGCTAATTTGTGGCTTTTACGACCCTACCCCACCCCTGTTTTCAGGGGTTTAGACTACATT CCCTTTTCCATTTCTTTTGTATTTGTTTTCTGTGAGAGCACTGAAATGGCAGCCCTGGAATCTACAATTTGGCTC GGGCAGTAAGAAGGGCTGCAAGGAAGGGAGGATGGGGACAAGGAAAGGATCAGATACCTGCTCCAGTAGTTGTG AGGCCACTGTGTCTCAGGGGACTCCAGGAGGAGCAGAAGAGGGATCCCACGAAGTTATTCTTACGCAGCTGGGGC

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GGGGGCAAAGGCATTGGTCACCAAGAGTCTTGCAGGGGGACCCACAGATATGCCATGTCCTTCACACGTGCTTGG CATGTTTTTCTATGACCTTTTCAGTCCTTCAGGTCATTTTAAGGTCCACTGCAGGGGGTTAGTGAGAAAGGGTA TACTTTGTGGTATGTTTTGCTTATAGGGACATGAAGGAAACCCAGCAATTTGCTGTTATGTGAATGGCCT GTAGAGCAGAGTCAAGAGCGGTGTGCTTTGCCCGACTGCTCCCATCAGGAATAGGAGAGTAGACAGAGATCTTCC ACATCCCAGGCTTCTGCTGCTGCTTTAAAAGCTCTGTCCTTGGAGCCTCCCGGAGCTCCCTGAAGTGTCTCGCCCCCT GCACAGCACTGGCCTTTCGGAAGCATCCCAGTAGGGTTTTCTGAGGCTCGCTGGTGACTCATGCCCTAATTGCAA TTTGAGCAATAAACTAATACAAAATGATGGCCATTCATGTGCAGCTCTTTGTCACCATGGGCCGGATGAGTTGTG CTCCTCCTGGCTCACCATTTCCCCCTGCTCCCCCACAGCCGGTTCTGCACTTATCACCGAGTCGCCCCTGGAAGC AGATTCCCATTGAGTTTTCCCCACCAAGGGGACCATGCACATGGTAGAAACATTAGATTCTGCATTGACAGTAGC CTTTCCTTGGCCCGGGCCTGTGGTGGGAAGACGGGCAACAAGTATACCCCACCAGGGCCTGAGTGACTAGAGGAA GAGGACGAGGCCTTGTTGGCACTAGATTTGGGTATTTTCTGCATGTCATAACATATCCTAACTGCTATTTCAGAA GAGGCAGCTTGTAGGTGATTGTACAAGTGAGAAATTAAAGAGAGACAGATATTTAAACAGGTGCTGTATTAGTAA CAGCCAGTGCCCTTTCAGCCCTTGCATCTATTAAAAGGAGATTCAGGATTTTATTGGCACAGGCCCTTCTTAGTA TGGTGGTAAATGTGATGGGTGCTTACACACTGTACCTTTTCCTTTCATACTGATGCTGCAGTTCAGGGCTGGAGT TGTTAAGGCATTGACCTCCACCCACCTGCCCCATGTCCACTGGGCTGCCCAAGCTGCATGTCACCTGAGGGCTGG CAGGAAGGGGCGAGAAATCCCAGGGCATTGTACCAAGGACCTAGTTCCTTCTAGGGATATAAATTTCCAGGAATG TGTATTTTTAATGTGGTGAGATGCACTCTTTTGTTGTACCAAATAGGGCTCCCCACCCCACCCCTGCGACAAGTG TTTCACTTTGAAAAAAAATGCAAATCGACTTTTTAACAACTGTTGAGATGTTTCATGGGACAGTAGAACTCTGAC TCTTGCTTTGCAGACTGCCTGCAGCCATGATTTTGTCACTGACATCTGTGAGCCAAAGACTGAGCCTTTTTGGCA AGAAGGGAACTGGGATTTGGGTAAGTTCTCCTCCACTGTTTGACCAAATTCTCAGTGATAAATATGTGTGCAGAT CCCTAGAAGAGAAAACGCTGACTTTCTTTTTAAGTGTGGCACATAAGGATCTGCAGAATTTTCCGTAGACAAAGA AAGGATCTTGTGTATTTTTGTCCATATCCAATGTTATATGAACTAATTGTATTGTTTTATACTGTGACCACAAAT ATTATGCAATGCACCATTTGTTTTTTTTTTCATTAAAGGAAGTTTAATTT

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MPDSTLPGSRVLARLDRDSLVHSSPHVALSHVDARSYHLLVRDVSKENSGYYYCHVSLWAPGHNRSWHKVAEAVS SPAGVGVTWLEPDYQVYLNASKVPGFADDPTELACRVVDTKSGEANVRFTVSWYYRMNRRSDNVVTSELLAVMDG DWTLKYGERSKQRAQDGDFIFSKEHTDTFNFRIQRTTEEDRGNYYCVVSAWTKQRNNSWVKSKDVFSKPVNIFWA LEDSVLVVKARQPKPFFAAGNTFEMTCKVSSKNIKSPRYSVLIMAEKPVGDLSSPNETKYIISLDQDSVVKLENW TDASRVDGVVLEKVQEDEFRYRMYQTQVSDAGLYRCMVTAWSPVRGSLWREAATSLSNPIEIDFQTSGPIFNASV HSDTPSVIRGDLIKLFCIITVEGAALDPDDMAFDVSWFAVHSFGLDKAPVLLSSLDRKGIVTTSRRDWKSDLSLE RVSVLEFLLQVHGSEDQDFGNYYCSVTPWVKSPTGSWQKEAEIHSKPVFITVKMDVLNAFKYPLLIGVGLSTVIG LLSCLIGYCSSHWCCKKEVQETRRERRRLMSMEMD

341/6881 FIGURE 317

GCTGCCGCGTTAGTTCCGAGCTTGAAGTCACTAGGACTTCTCTCAAACTTGAGTGCTGAGGAGACTCAGATGTTG AGAAAGCAACACTTGTTATCTTGGGCTTGGCAGCAAGGAAGAGGACAGGTAGTGGAGATCCTGCAATCTGAAAAG CAGACTGAAAGGTGACAAAGAAGCTGAAGATGGGTGGTAGAGAGGGGTATAACATTCCAGCCCCTCAATCTAGAA ATGTTAGTAAGAACCAACAACAGCTTAACAGACAGAAGACCAAGGAACAGAATTCCCAGATGAAGATTGTTCATA AGAAAAAAGAAAGGACATGGTTATAACTCATCAGCAGGTGCCTGGCAGGCCATGAAAAATGGGGGGAAGAACA AAAATTTTCCAAATAATCAAAGTTGGAATTCTAGCTTATCAGGTCCCAGCTTACTTTTTAAATCTCAAGCTAAAC AGAACTATGCTGGTGCCAAATTTAGTGAGCCGCCATCACCAAGTGTTCTTCCCAAACCACCAAGCCACTGGGTCC ATAAGACAAATGTTTAAGTTTATGTTCACAGATAGTTGTCAATTGGTCTGAAACAAATTTGCTAGGGAATC TATTTGTGTAGAACTAATTAATGTAAAAAAAATAGACTTCATCTCGTGTTGTGTGCACTGTGATATAATGGTAGT ATCAGTGCAACTTAAACTAATGATTGTAATTGATATTAAGTGTTCTCAACTGAGTAACTTTTAAGTGGAAACCAA CCAGTAGATTGTTGAAAGTTGGTGAATCGGATTATAAGCTTCTGGCTAACACAAGGATTCAGAATTAGGTAAACA TTTATAGAAACAGTATTTAATGGTCACTCAATAGCTTTCAAAATACATTTTTGTATTACAGCACTGCACAAGCTA CCTAGGGGAAAAGAGCCATGTAAATATCTGTAATAAACTTGTAGCATATGTAAAGTTTTCTTGGCCTTTATCTT ACAAAAATGGAATATTTTAGTATGAATTTGCTGAATGTAAGACCGTGGACTGTTTTTTATAATATGGCCTAATTT TGGTTGTAAACTATATTTCAAAGTAAACCCTAGTGTAATAAGTTTTATAACTAAAAAGGTTTAAGCTGCTAAAAC TATTTTTAAGAGATGTGAAATGCAGTATGGGACTATCTTTTTTTCCTCCTCTAAGCCCAAAGATTAACTAGAGTC ${\tt CCTCCAACCTTATAGATTTTTGGCTTTCACAATCTTATAACCTAGGATACAGGTAGTTTCGAGTATGGTGCCAGT}$ GATGTTTTGTTTTGGTCAAGGGGTAGGTGCAACCCAATGGACCACTTATGCAAAAGATGTAAACTCTTGC ATAATACATCGATAACATGTTTTGCCAACTTTAAATGCTTAAACATAAGCGAAACCAGTAGCAAGTATGTGGGTC AGTTTAAAAATTTTGATTGTTAATGCCCTATTTTCTAATTTGGCACCTCTTTTGATGCCTAAGCAGGTAAGCAGA ${\tt TGCCTAAGCTGTATTTCTCCAAATAAATCAAGAGGAAGTACTGCCCAAGTTAAATATTGATAGCCTAAAGACAAA}$ TTCATGTAGTACTTAATGTACATGATATGAATTTGAAGCATAAAATTAAATTTTTCCCCATTG

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TTTCAGCCAAACTTCGGGCGGCGGCTGAGGCGGCGGCCGGAGGAGCGGGGGCCGCGGGGGAGTCGAGGCA TCCTCTATCGGGACCCCTCCCCATGTGGATCTGCCCAGGCGGCGGCGGCGGCGGCGGAGGAGGAGGAGGACCGAG TACTGCAAATGTCCAGAAGGCTTCTTGGGGGAATATTGTCAACATCGAGACCCCTGTGAGAAGAACCGCTGCCAG AATGGTGGGACTTGTGTGGCCCAGGCCATGCTGGGGAAAGCCACGTGCCGATGTGCCTCAGGGTTTACAGGAGAG TCTCATCCCTGTGCAAATGGAAGTACCTGTACCACTGTGGCCAACCAGTTCTCCTGCAAATGCCTCACAGGCTTC ACAGGGCAGAAATGTGAGACTGATGTCAATGAGTGTGACATTCCAGGACACTGCCAGCATGGTGGCACCTGCCTC AACCTGCCTGGTTCCTACCAGTGCCAGTGCCCTCAGGGCTTCACAGGCCAGTACTGTGACAGCCTGTATGTGCCC TGTGCACCCTCACCTTGTGTCAATGGAGGCACCTGTCGGCAGACTGGTGACTTCACTTTTGAGTGCAACTGCCTT CCAGGTTTTGAAGGGAGCACCTGTGAGAGGAATATTGATGACTGCCCTAACCACAGGTGTCAGAATGGAGGGGTT TGTGTGGATGGGGTCAACACTTACAACTGCCGCTGTCCCCCACAATGGACAGGACAGTTCTGCACAGAGGATGTG GATGAATGCCTGCTGCAGCCCAATGCCTGTCAAAATGGGGGCACCTGTGCCAACCGCAATGGAGGCTATGGCTGT GTATGTGTCAACGGCTGGAGTGGAGATGACTGCAGTGAGAACATTGATGATTGTGCCTTCGCCTCCTGTACTCCA GGCTCCACCTGCATCGACCGTGTGGCCTCCTTCTCTTGCATGTGCCCAGAGGGGAAGGCAGGTCTCCTGTGTCAT CTGGATGATGCATCAGCAATCCTTGCCACAAGGGGGCACTGTGTGACACCAACCCCCTAAATGGGCAATAT ATTTGCACCTGCCCACAAGGCTACAAAGGGGCTGACTGCACAGAAGATGTGGATGAATGTGCCATGGCCAATAGC AATCCTTGTGAGCATGCAGGAAAATGTGTGAACACGGATGGCGCCTTCCACTGTGAGTGTCTGAAGGGTTATGCA GGACCTCGTTGTGAGATGGACATCAATGAGTGCCATTCAGACCCCTGCCAGAATGATGCTACCTGTCTGGATAAG AGCAACCCTTGTGTGAACAATGGGCAGTGTGTGGATAAAGTCAATCGTTTCCAGTGCCTGTGTCCTCCTGGTTTC ACTGGGCCAGTTTGCCAGATTGATATTGATGACTGTTCCAGTACTCCGTGTCTGAATGGGGCCAAAGTGTATCGAT CACCCGAATGGCTATGAATGCCAGTGTGCCACAGGTTTCACTGGTGTTGTTGTGTGAGGAGAACATTGACAACTGT GACCCCGATCCTTGCCACCATGGTCAGTGTCAGGATGGTATTGATTCCTACACCTGCATCTGCAATCCCGGGTAC ATGGGCGCCATCTGCAGTGACCAGATTGATGAATGTTACAGCAGCCCTTGCCTGAACGATGGTCGCTGCATTGAC GCAAGTAACCCTTGTATCCATGGAATCTGTATGGATGGCATTAATCGCTACAGTTGTGTCTGCTCACCAGGATTC ACAGGGCAGAGATGTAACATTGACATTGATGAGTGTGCCTCCAATCCCTGTCGCAAGGGTGCAACATGTATCAAC GGTGTGAATGGTTTCCGCTGTATATGCCCCGAGGGACCCCATCACCCCAGCTGCTACTCACAGGTGAACGAATGC CTGAGCAATCCCTGCATCCATGGAAACTGTACTGGAGGTCTCAGTGGATATAAGTGTCTCTGTGATGCAGGCTGG GTTGGCATCAACTGTGAAGTGGACAAAAATGAATGCCTTTCGAATCCATGCCAGAATGGAGGAACTTGTGACAAT CTGGTGAATGGATACAGGTGTACTTGCAAGAAGGGCTTTAAAGGCTATAACTGCCAGGTGAATATTGATGAATGT GCCTCAAATCCATGCCTGAACCAAGGAACCTGCTTTGATGACATAAGTGGCTACACTTGCCACTGTGTGCTGCCA TACACAGGCAAGAATTGTCAGACAGTATTGGCTCCCTGTTCCCCAAACCCTTGTGAGAATGCTGCTGTTTGCAAA GACGAGTGTATCTCCAAGCCCTGCATGAACCATGGTCTCTGCCATAACACCCAGGGCAGCTACATGTGTGAATGT CCACCAGGCTTCAGTGGTATGGACTGTGAGGAGGACATTGATGACTGCCTTGCCAATCCTTGCCAGAATGGAGGT ATGAATGAGTGTCTGAGTGAACCCTGTAAGAATGGAGGGACCTGCTCTGACTACGTCAACAGTTACACTTGCAAG TGCCAGGCAGGATTTGATGGAGTCCATTGTGAGAACACATCAATGAGTGCACTGAGAGCTCCTGTTTCAATGGT GGCACATGTGTTGATGGGATTAACTCCTTCTCTTGCTTGTGCCCTGTGGGTTTCACTGGATCCTTCTGCCTCCAT AGCTGCCCCTGGGCTACACTGGGAAAAACTGTCAGACCCTGGTGAATCTCTGCAGTCGGTCTCCATGTAAAAAC **AAAGGTACTTGCGTTCAGAAAAAAGCAGAGTCCCAGTGCCTATGTCCATCTGGATGGGCTGGTGCCTATTGTGAC** GTGCCCAATGTCTCTTGTGACATAGCAGCCTCCAGGAGAGGTGTGCTTGTTGAACACTTGTGCCAGCACTCAGGT

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GTCTGCATCAATGCTGGCAACACGCATTACTGTCAGTGCCCCCTGGGCTATACTGGGAGCTACTGTGAGGAGCAA CTCGATGAGTGTGCGTCCAACCCCTGCCAGCACGGGGCAACATGCAGTGACTTCATTGGTGGATACAGATGCGAG TGTGTCCCAGGCTATCAGGGTGTCAACTGTGAGTATGAAGTGGATGAGTGCCAGAATCAGCCCTGCCAGAATGGA GGCACCTGTATTGACCTTGTGAACCATTTCAAGTGCTCTTGCCCACCAGGCACTCGGGGCCTACTCTGTGAAGAG AACATTGATGACTGTGCCCGGGGTCCCCATTGCCTTAATGGTGGTCAGTGCATGGATAGGATTGGAGGCTACAGT TGTCGCTGCTTGCCTGGCTTTGCTGGGGAGCGTTGTGAGGGAGACATCAACGAGTGCCTCTCCAACCCCTGCAGC TCTGAGGGCAGCCTGGACTGTATACAGCTCACCAATGACTACCTGTGTGTTTTGCCGTAGTGCCTTTACTGGCCGG ATGCCTGATGGTTTCATTTGCCGTTGTCCCCCGGGATTTTCCGGGGCAAGGTGCCAGAGCAGCTGTGGACAAGTG AAATGTAGGAAGGGGGAGCAGTGTGTGCACACCGCCTCTGGACCCCGCTGCTTCTGCCCCAGTCCCCGGGACTGC GAGTCAGGCTGTGCCAGTAGCCCCTGCCAGCACGGGGGCAGCTGCCACCCTCAGCGCCAGCCTCATTATTACTCC TGCCAGTGTGCCCCACCATTCTCGGGTAGCCGCTGTGAACTCTACACGGCACCCCCCAGCACCCCTCCTGCCACC AGCAAGACATGCAAGTATGACAAATACTGTGCAGACCACTTCAAAGACAACCACTGTGACCAGGGGTGCAACAGT GAGGAGTGTGGTTGGGATGGGCTGGACTGTGCTGACCAACCTGAGAACCTGGCAGAAGGTACCCTGGTTATT GTGGTATTGATGCCACCTGAACAACTGCTCCAGGATGCTCGCAGCTTCTTGCGGGCACTGGGTACCCTGCTCCAC ACCAACCTGCGCATTAAGCGGGGACTCCCAGGGGGAACTCATGGTGTACCCCTATTATGGTGAGAAGTCAGCTGCT $\tt CTGGAAATTGACAACCGCCAGTGTGTTCAAGACTCAGACCACTGCTTCAAGAACACGGATGCAGCAGCAGCTCTC$ CTGGCCTCTCACGCCATACAGGGGACCCTGTCATACCCTCTTGTGTCTCGTCAGTGAATCCCTGACTCCAGAA CGCACTCAGCTCCTCTATCTCCTTGCTGTTGCTGTTGTCATCATTCTGTTTATTATTCTGCTGGGGGTAATCATG ${\tt AAGCGTCGTGAGCCAGTGGGACAGGATGCTGTGGGGCTGAAAAATCTCTCAGTGCAAGTCTCAGAAGCTAACCTA}$ GCCTTACTCTCAGAAGAAGATGACCCCATTGATCGACGGCCATGGACACAGCAGCACCTTGAAGCTGCAGACATC CGTAGGACACCATCGCTGGCTCTCACCCCTCCTCAGGCAGAGCAGGAGGTGGATGTGTTAGATGTGAATGTCCGT GGCCCAGATGGCTGCACCCCATTGATGTTGGCTTCTCCCGAGGAGGCAGCTCAGATTTGAGTGATGAAGATGAA CGGACTGGTGAGATGGCCCTGCACCTTGCAGCCCGCTACTCACGGGCTGATGCTGCCAAGCGTCTCCTGGATGCA GGTGCAGATGCCAATGCCCAGGACAACATGGGCCGCTGTCCACTCCATGCTGCAGTGGCAGCTGATGCCCAAGGT CTGGCTGCCCGCCTGGCTGTGGAGGGAATGGTGGCAGAACTGATCAACTGCCAAGCGGATGTGAATGCAGTGGAT GACCATGGAAAATCTGCTCTTCACTGGGCAGCTGCTGTCAATAATGTGGAGGCAACTCTTTTGTTGTAAAAAAT GGGGCCAACCGAGACATGCAGGACAACAAGGAAGACACCTCTGTTTCTTGCTGCCCGGGAGGGGAGCTATGAA GCAGCCAAGATCCTGTTAGACCATTTTGCCAATCGAGACATCACAGACCATATGGATCGTCTTCCCCGGGATGTG GCTCGGGATCGCATGACCATGACATTGTGCGCCTTCTGGATGAATACAATGTGACCCCAAGCCCTCCAGGCACC GTGTTGACTTCTGCTCTCTCACCTGTCATCTGTGGGCCCAACAGATCTTTCCTCAGCCTGAAGCACACCCCAATG GGCAAGAAGTCTAGACGGCCCAGTGCCAAGAGTACCATGCCTACTAGCCTCCCTAACCTTGCCAAGGAGGCAAAG CCTGTTGATTCCCTAGAATCTCCTCACACGTATGTTTCCGACACCACATCCTCTCCAATGATTACATCCCCTGGG ATCTTACAGGCCTCACCCAACCCTATGTTGGCCACTGCCCCCCTCCTGCCCCAGTCCATGCCCAGCATGCACTA TCTTTTTCTAACCTTCATGAAATGCAGCCTTTGGCACATGGGGCCAGCACTGTGCTTCCCTCAGTGAGCCAGTTG CCAGCAGATTGGATGAACCGCATGGAGGTGAATGAGACCCAGTACAATGAGATGTTTGGTATGGTCCTGGCTCCA GCTGAGGGCACCCATCCTGGCATAGCTCCCCAGAGCAGCCACCTGAAGGGAAGCACATAACCACCCCTCGGGAG CCCTTGCCCCCATTGTGACTTTCCAGCTCATCCCTAAAGGCAGTATTGCCCAACCAGCGGGGGCTCCCCAGCCT

344/6881 FIGURE 318C

CAGTCCACCTGCCCTCCAGCTGTTGCGGGCCCCCTGCCCACCATGTACCAGATTCCAGAAATGGCCCGTTTGCCC AGTGTGGCTTTCCCCACTGCCATGATGCCCCAGCAGGACGGCCAGGTAGCTCAGACCATTCTCCCAGCCTATCAT TGGTCAAGTTCATCACCCCACTCTGCTTCTGACTGGTCAGATGTGACCACCAGCCCTACCCCTGGGGGTGCTGGA GGAGGTCAGCGGGGACCTGGGACACACATGTCTGAGCCACCACCACAACAACATGCAGGTTTATGCGTGAGAGAGT CCACCTCCAGTGTAGAGACATAACTGACTTTTGTAAATGCTGCTGAGGAACAAATGAAGGTCATCCGGGAGAGAA ATGAAGAAATCTCTGGAGCCAGCTTCTAGAGGTAGGAAAGAGAAGATGTTCTTATTCAGATAATGCAAGAGAAGC AATTCGTCAGTTTCACTGGGTATCTGCAAGGCTTATTGATTATTCTAATCTAATAAGACAAGTTTGTGGAAATGC GACATTCTTGCAGCTTGGACTGCATTTTAAGCCCTGCAGGCTTCTGCCATATCCATGAGAAGATTCTACACTAGC GTCCTGTTGGGAATTATGCCCTGGAATTCTGCCTGAATTGACCTACGCATCTCCTCCTCCTTGGACATTCTTTTG TCTTCATTTGGTGCTTTTGGTTTTGCACCTCTCCGTGATTGTAGCCCTACCAGCATGTTATAGGGCAAGACCTTT GTGCTTTTGATCATTCTGGCCCATGAAAGCAACTTTGGTCTCCTTTCCCCTCCTGTCTTCCCGGTATCCCTTGGA GTCTCACAAGGTTTACTTTGGTATGGTTCTCAGCACAAACCTTTCAAGTATGTTGTTTCTTTGGAAAATGGACAT ACTGTATTGTGTTCTCCTGCATATATCATTCCTGGAGAGAGGAGGGGGGAGAAGAATACTTTTCTTCAACAAATTTT GGGGGCAGGAGATCCCTTCAAGAGGCTGCACCTTAATTTTTCTTGTCTGTGTGCAGGTCTTCATATAAACTTTAC ${\tt CAGGAAGAGGGTGTGAGTTTGTTTTTCTGTGTATGGGCCTGGTCAGTGTAAAGTTTTATCCTTGATAGTCT}$ AGTTACTATGACCCTCCCCACTTTTTTAAAACCAGAAAAAGGTTTGGAATGTTGGAATGACCAAGAGACAAGTTA ACTCGTGCAAGAGCCAGTTACCCACCCACAGGTCCCCCTACTTCCTGCCAAGCATTCCATTGACTGCCTGTATGG GTTGAGCCTTTCCTTTCATATCCACAGAAGACACTGTCTCAAATGTTGTACCCTTGCCATTTAGGACTGAACTTT CCTTAGCCCAAGGGACCCAGTGACAGTTGTCTTCCGTTTGTCAGATGATCAGTCTCTACTGATTATCTTGCTGCT TAAAGGCCTGCTCACCAATCTTTCTTTCACACCGTGTGGTCCGTGTTACTGGTATACCCAGTATGTTCTCACTGA AGACATGGACTTTATATGTTCAAGTGCAGGAATTGGAAAGTTGGACTTGTTTTCTATGATCCAAAACAGCCCTAT AAGAAGGTTGGAAAAGGAGGAACTATATAGCAGCCTTTGCTATTTTCTGCTACCATTTCTTTTCCTCTGAAGCGG CCATGACATTCCCTTTGGCAACTAACGTAGAAACTCAACAGAACATTTTCCTTTCCTAGAGTCACCTTTTAGATG ATAATGGACAACTATAGACTTGCTCATTGTTCAGACTGATTGCCCCTCACCTGAATCCACTCTGTATTCATGC TCTTGGCAATTTCTTTGACTTTTTTTTTTTTCTTC CTCTTCTCCTTGGGCCAGTTAATAATTGGTCCATGGCTACACTGCAACTTCCGTCCAGTGCTGTGATGCCCATGA CACCTGCAAAATAAGTTCTGCCTGGGCATTTTGTAGATATTAACAGGTGAATTCCCGACTCTTTTGGTTTGAATG CATATGGAAACCCTGCGTGTCTGTTGGCATAATAGTTTACAAATGGTTTTTTCAGTCCTATCCAAATTTATTGAA ${\tt CCAACAAAAATAATTACTTCTGCCCTGAGATAAGCAGATTAAGTTTGTTCATTCTCTGCTTTATTCTCTCCATGT}$ GGCAACATTCTGTCAGCCTCTTTCATAGTGTGCAAACATTTTATCATTCTAAATGGTGACTCTCTGCCCTTGGAC CCATTTATTATTCACAGATGGGGAGAACCTATCTGCATGGACCTCTGTGGACCACAGCGTACCTGCCCCTTTCTG ${\tt CCCTCCTGCTCCAGCCCCACTTCTGAAAGTATCAGCTACTGATCCAGCCACTGGATATTTTATATCCTCCCTTTT}$ CCTTAAGCACAATGTCAGACCAAATTGCTTGTTTCTTTTCTTGGACTACTTTAATTTGGATCCTTTGGGTTTGG AGAAAGGGAATGTGAAAGCTGTCATTACAGACAACAGGTTTCAGTGATGAGGAGGACAACACTGCCTTTCAAACT TTTTACTGATCTCTTAGATTTTAAGAACTCTTGAATTGTGTGGTATCTAATAAAAGGGAAGGTAAGATGGATAAT CACTTTCTCATTTGGGTTCTGAATTGGAGACTCAGTTTTTATGAGACACATCTTTTATGCCATGTATAGATCCTC ATAGGTTTTTTTTTTTTTTTTTTTTTTCTTCTCTCTGTTTTTGTTTTAAGCATCATTTTCTTATGTGAGGTGGGGAAGG GAAAGGTATGAGGGAAAGAGAGTCTGAGAATTAAAATATTTTAGTATAAGCAATTGGCTGTGATGCTCAAATCCA TTGCATCCTCTTATTGAATTTGCCAATTTGTAATTTTTGCATAATAAAGAACCAAAGGTGTAATGTTTTGTTGAG AGGTGGTTTAGGGATTTTGGCCCTAACCAATACATTGAATGTATGATGACTATTTGGGAGGACACATTTATGTAC CCAGAGGCCCCCACTAATAAGTGGTACTATGGTTACTTCCTTGTGTACATTTCTCTTAAAAGTGATATTATATCT GTTTGTATGAGAAACCCAGTAACCAATAAAATGACCGCATATTCCTGACTAAACGTAGTAAGGAAAATGCACACT

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GAGGAGGAGGAGATGACTGGGGAGCGGGAGCTGGAGAATACTGCCCAGTTACTCTAGCGCGCCAGGCCGAAC CGCAGCTTCTTGGCTTAGGTACTTCTACTCACAGCGGCCGATTCCGAGGCCAACTCCAGCAATGGCTTTTGCAAA ${\tt TCTGCGGAAGTGCTCATCAGTGACGCCTGGACCCTTGCTGCCGGAAGATCTTGCAAGATGGAGGGCTGCAGGT}$ GGTGGAAAAGCAGAACCTTAGCAAAGAGGAGCTGATAGCGGAGCTGCAGGACTGTGAAGGCCTTATTGTTCGCTC TGCCACCAAGGTGACCGCTGATGTCATCAACGCAGCTGAGAAACTCCAGGTGGTGGGCAGGGCTGGCACAGGTGT GGACAATGTGGATCTGGAGGCCGCAACAAGGAAGGGCATCTTGGTTATGAACACCCCCAATGGGAACAGCCTCAG TGCCGCAGAACTCACTTGTGGAATGATCATGTGCCTGGCCAGGCAGATTCCCCAGGCGACGGCTTCGATGAAGGA CGGCAAATGGGAGCGGAAGAAGTTCATGGGAACAGAGCTGAATGGAAAGACCCTGGGAATTCTTGGCCTGGGCAG GATTGGGAGAGAGGTAGCTACCCGGATGCAGTCCTTTGGGATGAAGACTATAGGGTATGACCCCATCATTTCCCC AGAGGTCTCGGCCTCCTTTGGTGTTCAGCAGCTGCCCCTGGAGGAGATCTGGCCTCTCTGTGATTTCATCACTGT GCACACTCCTCCTGCCCTCCACGACAGGCTTGCTGAATGACACACCTTTGCCCAGTGCAAGAAGGGGGTGCG TGTGGTGAACTGTGCCCGTGGAGGGATCGTGGACGAAGGCGCCCTGCTCCGGGCCCTGCAGTCTGGCCAGTGTGC CGGGGCTGCACTGGACGTGTTTACGGAAGAGCCGCCACGGGACCGGGCCTTGGTGGACCATGAGAATGTCATCAG CTGTCCCCACCTGGGTGCCAGCACCAAGGAGGCTCAGAGCCGCTGTGGGGAAGAATTGCTGTTCAGTTCGTGGA CATGGTGAAGGGGAAATCTCTCACGGGGGTTGTGAATGCCCAGGCCCTTACCAGTGCCTTCTCTCCACACACCAA GCCTTGGATTGGTCTGGCAGAAGCTCTGGGGACACTGATGCGAGCCTGGGCTGGGTCCCCCAAAGGGACCATCCA GGTGATAACACAGGGAACATCCCTGAAGAATGCTGGGAACTGCCTAAGCCCCGCAGTCATTGTCGGCCTCCTGAA AGAGGCTTCCAAGCAGGCGGATGTGAACTTGGTGAACGCTAAGCTGCTGGTGAAAGAGGCTGGCCTCAATGTCAC CACCTCCCACAGCCCTGCTCCACCAGGGGAGCAAGGCTTCGGGGGAATGCCTCCTGGCCGTGGCCCTGGCAGGCGC ${\tt CCCTTACCAGGCTGTGGGCTTGGTCCAAGGCACTACGCCTGTACTGCAGGGGCTCAATGGAGCTGTCTTCAGGCC}$ AGAAGTGCCTCTCCGCAGGGACCTGCCCCTGCTCCTATTCCGGACCTCTGACCCTGCAATGCTGCCTAC CATGATTGGCCTCCTGGCAGAGGCAGGCGTGCGGCTGCTGTCCTACCAGACTTCACTGGTGTCAGATGGGGAGAC CTGGCACGTCATGGGCATCTCCTCCTTGCTGCCCAGCCTGGAAGCGTGGAAGCATGTGACTGAAGCCTTCCA ATAGGGAGAGAAAATCCACATTCTTGGGCTGAACGCGGGCCTCTGACACTGCTTACACTGCACTCTGACCCTGTA GTACAGCAATAACCGTCTAATAAAGAGCCTACCCCC

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MAFANLRKVLISDSLDPCCRKILQDGGLQVVEKQNLSKEELIAELQDCEGLIVRSATKVTADVINAAEKLQVVGR
AGTGVDNVDLEAATRKGILVMNTPNGNSLSAAELTCGMIMCLARQIPQATASMKDGKWERKKFMGTELNGKTLGI
LGLGRIGREVATRMQSFGMKTIGYDPIISPEVSASFGVQQLPLEEIWPLCDFITVHTPLLPSTTGLLNDNTFAQC
KKGVRVVNCARGGIVDEGALLRALQSGQCAGAALDVFTEEPPRDRALVDHENVISCPHLGASTKEAQSRCGEEIA
VQFVDMVKGKSLTGVVNAQALTSAFSPHTKPWIGLAEALGTLMRAWAGSPKGTIQVITQGTSLKNAGNCLSPAVI
VGLLKEASKQADVNLVNAKLLVKEAGLNVTTSHSPAAPGEQGFGECLLAVALAGAPYQAVGLVQGTTPVLQGLNG
AVFRPEVPLRRDLPLLLFRTQTSDPAMLPTMIGLLAEAGVRLLSYQTSLVSDGETWHVMGISSLLPSLEAWKQHV
TEAFQFHF

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GGGCGCGGGCCGGGGTGGGCTTCCCACGGCACGACATGGAGACCTGTGGTTGCGAGGCTCCCTGGGGCTCGGCTT CTCCCTGCCCGGCCGCATCGCTGCCAAGCTCGCCTTCCTGCCGCGGAGGCCACCTACTCCCTGGTGCCTGAGC $\verb|CCGAGCTGGGGCCTGGGGGCCCCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCT|\\$ TCTCGCACGGCAATGCCGTGGACCTGGGCCAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCA ACATCTTCACCTACGACTCCTCCGGCTACGGTGCCAGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACA TCGACGCCACCTGGCAGGCCCTGCGCACCAGGTACGGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCA CGGGCATGCGCGTCGCCTTCCGCGACACCAAGAAGACCTACTGCTTCGACGCCTTCCCTAACATCGAGAAGGTGT $\tt CCCCCGGGGCCCAGGGGACCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACT$ CCTTTCCTTTTGGAAGCAAGAAGAAAATACGTGAAAACGGAAATTAAAGATTTAAAATT

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MNGLSLSELCCLFCCPPCPGRIAAKLAFLPPEATYSLVPEPELGPGGAGAAPLGTLRASSGAPGRWKLHLTERAD FQYSQRELDTIEVFPTKSARGNRVSCMYVRCVPGARYTVLFSHGNAVDLGQMSSFYIGLGSRLHCNIFTYDSSGY GASSGRPSERNLYADIDATWQALRTRYGISPDSIILYGQSIGTVPTMDLASRYECAAVVLHSPLTSGMRVAFRDT KKTYCFDAFPNIEKVSKITSPVLIIHGREDEVIDFSHGLALYERCPKAVEPLWVEGAGHNDIELYSQYLERLRRF ISQELPSQRA

350/6881 FIGURE 323A

AGCGTGAACCTGGGAGGCAGAGCTTGCAGTGAGCCTAGATCGCGTCACTCCAGCCTGGGAGACAGAGTGA CATGACTACCATTAAGAAAATATAACCTGTTGGGAAACTGTTTCTGCCTTGATGATGTTGTACAGACAAGAGATA AACAGTGAGGAATGTGCTTAGATGTATTGGGAAAGACACGGGTCTGTGGCATTGTCACAAGGGTACACGAATACT GAGAGTGAATGCTGAAGGAATGATCCCCATTGGTGGTGACCCTCAGGTGAGACTAGGGTGCCTGTGTTTCAGCAA AGCCTGGGCAATTGGAATGCAGGGCTCCTAAGATTCCATGACACCCCCACCTTCTAATTCTGTTATTGCAACTGC AGACCGTTACCTGGCACGCTGGCCACAATCTACCTCACTCTTATCAGAGTCTGAGCTACTGGCAGTGCTTTCAGC TCTGAGTTGAGGCACCTCGAACCTTGTTTTTGTGGTGAAGGATCCTAAAGTGCTGTGGGAGTGATCACATTTTTC ACAACAGTAAGTCCCTGACTCCACCTCTTCTGCCACAAACGTCAGCATGGTGGTATCAGCCGGCCCTTGGTCCAG CGAGAAGGCAGAGATGAACATTCTAGAAATCAACGAGAAATTGCGCCCCCAGTTGGCAGAGAACAACAGCAGTT CGTAAACCTCAAAGAGATGTTTTCTAACTCAACTGGCCGGCTTCCTGGCCAACCGACAGAAGAAATACAGCAATA TAAAGTCCTGGTTCACTCTCAGGAACGAGAGCTGACGCAGTTAAAGGAGAAGTTACAGGAAGGGAGAGATGCCTC CCGCTCATTGAATGAGCATCTCCAGGCCCTCCTCACTCTGGATGAGCCGGACAAGTCCCAGGGGCAGGACCTCCA AGAACAGCTGGCTGAGGGGTGTAGACTGGCACAGCACCTTGTCCAAAAGCTCAGCCCAGAAAATGACGAAGATGA GGATGAAGATGTTCAAGTTGAGGAGGATGAGAAAGTGCAGAAATCATCTGCCCCCAGGGAGGTGCAGAAGGCTGA AGTGAGCAAAGTCCCTGAGGACTCACTGGAGGAATGTGCCATCACTTGTTCAAATAGCCACGGCCCTTGTGACTC CAACCAGCCTCACAAGAACATCAAAATCACATTTGAGGAAGACGAAGTCAACTCAACTCTGGTTGTAGACAGAGA ATCCTCTCATGATGAATGTCAGGATGCTCTAAACATTCTCCCAGTCCCTGGCCCCACCTCTTCTGCCACAAACGT CAGCATGGTGGTATCAGCCGGCCCTTTGTCCAGCGAGAAGGCAGAGATGAACATTCTAGAAATCAATGAGAAATT GCACCCCAGCTGGCAGAGAAGAACAGCAGTTCAGAAACCTCAAAGAGAAATGTTTTCTAACTCAACTGGCCGG CTTCCTGGCCAACCAGCAGAACAAATACAAGTATGAAGAGTGTAAAGACCTCATAAAATTTATGCTGAGGAATGA TCACGCTCAGGAACGAGAGCTGACCCAGTTAAGGGAGAAGTTGCGGGAAGGGAGAGATGCCTCCCGCTCATTGAA TGAGCATCTCCAGGCCCTCCTCACTCCGGATGAGCCGGACAAGTCCCAGGGGCAGGACCTCCAAGAACAGCTGGC TGAGGGGTGTAGACTGGCACAGCACCTTGTCCAAAAGCTCAGCCCAGAAAATGACAACGATGACAATGAAGATGT TCAAGTTGAGGTGGCTGAGAAAGTGCAGAAATCGTCTGCCCCCAGGGAGATGCAGAAGGCTGAAGAAAAGGAAGT CCCTGAGGACTCACTGGAGGAATGTGCCATCACTTATTCAAATAGCCATGGCCCTTATGACTCCAACCAGCCACA TAGGAAAACCAAAATCACATTTGAGGAAGACAAAGTCGACTCAACTCTCATTGGCTCATCCTCTCATGTTGAACG GGAAGATGCTGTACACATTATTCCAGAAAATGAAAGTGATGATGAGGGAAGAAGAAGAAAAAGGGCCAGTGTCTCC CAGGAATCTGCAGGAGTCTGAAGAGGGGGAAGTCCCCCAGGAGTCCTGGGATGAAGGTTATTCGACTCCCTCAAT TCCTCCTGAAATGTTGGCCTCGTACAAGTCTTACAGCAGCACATTTCACTCATTAGAGGAACAGCAAGTCTGCAT GGCTGTTGACATAGGCAGACATCGGTGGGATCAAGTGAAAAAGGAGGACCAAGAGGCAACAGGTCCCAGGCTCAG CAGGGAGCTGCTGGATGAGAAAGGGCCTGAAGTCTTGCAGGACTCACTGTATAGATGTTATTCAACTCCTTCAGG TTGTCTTGAACTGACTCATGCCAGCCCTACAGAAGTGCCTTTTACGTATTGGAGCAACAGCGTGTTGGCTT GGCTGTTGACATGGATGAAATTGAAAAGTACCAAGAAGTGGAAGAAGACCAAGACCCATCATGCCCCAGGCTCAG ${\tt CAGGGAGCTGCTGGATGAGAAGAGCCTGAAGTCTTGCAGGACTCACTGGGTAGATGGTATTCGACTCCTTCAGG}$ TTATCTTGAACTGCCTGACTTAGGCCAGCCCTACAGCAGTGCTGTTTACTCATTGGAGGAACAGTACCTTGGCTT GGCTCTTGACTTGGACAGAATTAAAAAGGACCAAGAAGAAGAAGAAGACCAAGGCCCACCATGCCCCAGGCTCAG CAGGGAGCTGCTGGAGGTAGAGCCTGAAGTCTTGCAGGACTCACTGGATAGATGTTATTCAACTCCTTCCAG TTGTCTTGAACAGCCTGACTCCTGCCAGCCCTATGGAAGTTCCTTTTATGCATTGGAGGAAAAACATGTTGGCTT AAGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAAACCCACCATGCCCCAGGCTCAACGGCGTGCTGATGGAAGT GGAAGAGCCTGAAGTCTTGCAGGACTCACTGGATGGATGTTATTCTACTCCGTCAATGTACTTTGAACTACCTGA CTCATTCCAGCACTACAGAAGTGTGTTTTACTCATTTGAGGAACAGCACATCAGCTTCGCCCTTTACGTGGACAA TAGGTTTTTTACTTTGACGGTGACAAGTCTCCACCTGGTGTTCCAGATGGAAGTCATATTCCCACAATAAGCAGC ${\tt CCATTTGGAAGCCCAGACATAGGATGGGTCAGTGGGCATGGCTATTCCTATTCTCAAACCATGCCAGTGGCAA}$ ${\tt CCTGTGCTCAGTCTGAAGACAATGGACCCACGTTAGGTGTGACACGTTCACATAACTGTGCAGCACATGCCGGGA}$

351/6881 FIGURE 323B

GTGATCAGTCAGACATTTTAATTTGAACCACGTATCTCTGGGTAGCTACAAAATTCCTCAGGGATTTCATTTTGC AGACATGTCTCTGAGCTTCTATACCTGCTCAAGGTCATTGTCATCTTTGTGTTTTAGCTCATCCAAAGGTGTTACC CTGGTTTCAATGAACCTAACCTCATTCTTCGTGTCTTCAGTGTTGGCTTGTTTTAGCTGATCCATCTGTAACACA GGAGGGATCCTTGGCTGAGGATTGTATTTCAGAACCACCAACTGCTCTTGACAATTGTTAACCCGCTAGGCTCCT TTGGTTAGAGAAGCCACAGTCCTTCAGCCTCCAATTGGTGTCAGTACTTAGGAAGACCACAGCTAGATGGACAAA CAGCATTGGGAGGCCTTAGCCCTGCTCCTCTCAATTCCATCCTGTAGAGAACAGGAGTCAGGAGCCGCTGGCAGG AGACAGCATGTCACCCAGGACTCTGCCGGTGCAGAATATGAACAATGCCATGTTCTTGCAGAAAACGCTTAGCCT GAGTTTCATAGGAGGTAATCACCAGACAACTGCAGAATGTAGAACACTGAGCAGGACAACTGACCTGTCTCCTTC TGACATGGACTTGTTTATAGAGGACAGGTCAGCTGTCTGGCTCAATGATCTACATTCTGAAGTTGTCTGAAAATG TCTTCATGATTAAATTCAGCCTAAACGTTTTGCCGGGAACACTGCAGAGACAATGCTGTGAGTTTCCAACCTCAG CCCATCTGCGGGCAGAGAGGTCTAGTTTGTCCATCACCATTATGATATCAGGACTGGTTACTTGGTTAAGGAGG GGTCTAGGAGATCTGTCCCTTTTAGAGACACCTTACTTATAATGAAGTACTTGGGAAAGCGGTTTTCAAGAGTAT ATATTCATATCTCTACGCTGCAAATTTTGGGTCTCAATTTTTACTGTGCCTTTTGTTTTTACTAGTGTCTGCTGTT GCAAAAAGAAGAAACATTCTCTGCCTGAGTTTTAATTTTTGTCCAAAGTTAATTTTAATCTATACAATTAAAAC CTTTTGCCTATCACTCTGGACTTTTGGATTGTTTTTTACATTCAGTGTTATAATATTTGATTATGCTGATTGGTT TTGGTGGGTACTGATGCGAATTAATAAAAACATTTCATTTCC

352/6881 FIGURE 324A

GTTTTGTAACTCAACTGGCCGGCTTCCTGGCCAAGCAGCAGCAGAACAATACAAATATGAAGAGTGCAAAGACCTCA TCAGGTGAGGGACCCCATGGGGGCAGGCAGGGGGGCAGGTGTGTAAATCTCTGAAGTACAACAGCTCGGTGGGG AGACTTAAGAGCTAAGCTGGGCCAGGGGAAGGGCAGGAATTGCCATGGCAGGCTCGCTACACACAAATATTTATC AAACAGAGAAGAAGGATAATAAAAATTTATGGGTTGCAGTGTTTCTCAGAGCCTGTTTTCTTTTTTCAAACAAGT AATGTTGATGTGAAATTTACATAACACAAAATTAACCAAAGGAGTGTGAACCACACAGCAGCATTCAGTATACTC TGGCCTCATTTCTGTACATGGCTTTGTATCTAATGGCCGCAAGATGCACTATGTGTATTTTCACATGGAAATGTC CATGGCCAGAGTGAGGAACTGAAAGGATGTCTTTTTGAAACGGAATTAGGAAGACACCTACTTTTGTTTACAGAG GGGAAAGATGAATGGAACATCATCGAGGATCTTGCAGGAGCCCTCTCTGATACAGAGGAAGCCTGTAAACCATTT TCTATTCTTTCTCTTGGCCACAGACATTCCTTTCAACATGTGCTGACCTTCTGCTTGGAGGTCTCCTTGAGGACA TTGTCTCAGAAATCTCTGTTGCAATATTTGAACGGATCACTCAACCCTTTCCACTCTTAAATTTTCTCTACCGTC TCACCTTAGGCAATATAAAGTCCTGGTTCACTCTCAGGAACGAGAGCTGACCCAGTTAAGGGAGAAGTTACGGGA AGGGAGAGATGCCTCCCGCTCATTGAATGAGCATCTCCAGGCCCTCCTCACTCCGGATGAGCCGGACAAGTCCCA GGGGCAGACCTCCAAGAACAGCTGGCTGAGGGGTGTAGACTGGCACAACACCTTGTCCAAAAAGCTCAGCCCAGA AAATGATAACGATGACGATGAAGATGTTCAAGTTGAGGTGGCTGAGAAAGTGCAGAAATCGTCTTCCCCCAGGGA GATGCAGAAGGCTGAAGAAAAGGAAGTCCCTGAGGACTCACTGGAGGAGTGTGCCATCACTTGTTCAAATAGCCA TGGCCCTTATGACTCCAACCAGCCACATAGGAAAACCAAAATCACATTTGAGGAAGACAAAGTCGACTCAACTCT CATTGGCTCATCCTCATGTTGAATGGGAGGATGCTGTACACATTATCCCAGAAAATGAAAGTGATGATGAGGA AGAGGAAGAAAAAGGGCCAGTGTCTCCCAGGAATCTGCAGGAGTCTGAAGAGGAGGAAGTCCCCCAGGAGTCCTG GGATGAAGGTTATTCGACTCTCTCAATTCCTCCTGAAAGGTTGGCCTCATACCAGTCTTACAGCAGCACATTTCA CTCATTAGAGGAACAGCAAGTCTGCATGGCTGTTGACATAGGCAGACATCGGTGGGATCAAGTGAAAAAAGGAGGA CGTATTGGAGCAACAGCGTGTTGGCTTGGCTGTTGACATGGATGAAATTGAAAAGTACCAAGAAGTGGAAGAAGA GGATAGATGTTATTCGACTCCTTCAGGTTATCTTGAACTGCCTGACTTAGGCCAGCCCTACAGAAGTGCTGTTTA CTCATTGGAGGAACAGTACCTTGGCTTGGCTCTTGACGTGGACAGAATTAAAAAGGACCAAGAAGAAGAAGAAGAAGAAGA CCAAGGCCCACCATGCCCCAGGCTCAGCAGGGAGCTGCTGGAGGTAGTAGAGCCTGAAGTCTTGCAGGACTCACT GGATAGATGTTATTCAACTCCTTCCAGTTGTCTTGAACAGCCTGACTCCTGCCAGCCCTACAGAAGTTCCTTTTA TGCATTGGAGGAAAAACATGTTGGCTTTTCTCTTGACGTGGGAGAAATTGAAAAGAAGGGGAAGGGGAAGAAAAG AAGGGGAAGAAGATCAAAGAAGAAAAAGAAGAAGGGGGAAGAAAGGAGGGGAAGAAGATCAAAACCCACCATGCCC CAGGCTCAACAGCGTGCTGATGGAAGTGGAAGAGCCTGAAGTCTTGCAGGACTCACTGGATAGATGTTATTCGAC TCCATCAATGTACTTTGAACTACCTGACTCATTCCAGCACTACAGAAGTGTGTTTTACTCATTTGAGGAACAGCA CATCACCTTTGCCCTTGACATGGACAATAGCTTTTTTACTTTGACGGTGACAAGTCTCCACCTGGTCTTCCAGAT CCTGAAGATTTGAATGAAACTATAGTTCCATTTGGAAGCCCAGACATAGGATGGGTCAGTGGGCATGGCTCTATT CCTATTCTCAGAGCATGCCAGTGGCAACCTGTGCTCAGTCTGAAGACAATGGACCCACGTTAGGTGTGACACGTT CACATAACTGTGCAGCACATGCCGGGAGTGATCAGCCGGACATTTTAATTTGAACCATGTATCTCTGGGTAGCTA CAAAATTCCTCAGGGATTTCATTTTGCAGGCATGTCTCTGAGCTTCTATACCTACTCAAGGTCAGTGTCATCTTT GTGTTTAGTTCATCCAAAGGTGTTACCCTGGTTTCAATGAACCTAACCTCATTATTTGTGTCTTCAGTGTTGGCT TGTTTTAGCTGATCCATCTGTAACACAGGAGGGATCCTTGGCTGAGGATTGTATTTCAGAACCACCAACTGCTCT TGACAATTGTTAACCCGCTAGGCTCCTTTGGTTAGAGAAGCCACAGTCCTTCAGCCTCCAATTGGTGTCAGTACT TAGGAAGACCACAGCTAGATGGACAAACAGCATTGGGAGGCCTTAGCCCTGCTCCTCTCAATTCCATCCTGTAGA GAACAGGAGTCAGGAGCCGCTGGCAGGAGACAGCATGTCACCCAGGACTCTGCCGGTGCAGAATATGAGCAATGC CATGTTCTTGCAGAAAACGCTTAGCCTGAGTTTCATAGGAGGTAATCACCAGACAACTGCAGAATGTAGAACACT GAGCAGGACAACTGACCTGTCTCCTTCACATAGTCCATATCACCACAAATCACACAACAAAAAGGAGAAGAGATA

353/6881 FIGURE 324B

354/6881 FIGURE 325

MLRNELQFKEEKLAEQLKQAEELRQYKVLVHSQERELTQLREKLREGRDASRSLNEHLQALLTPDEPDKSQGQDL QEQLAEGCRLAQHLVQKLSPENDNDDDEDVQVEVAEKVQKSSSPREMQKAEEKEVPEDSLEECAITCSNSHGPYD SNQPHRKTKITFEEDKVDSTLIGSSSHVEWEDAVHIIPENESDDEEEEEKGPVSPRNLQESEEEEVPQESWDEGY STLSIPPERTSVGSSEKGGPRGNRSQAQQGAAG

355/6881 FIGURE 326

CTCCGCGGTCTTCTGAGCGGTCACGTGAACGGCTTCCTGCAGGCTGGCCATGGCGCTTCAAGTTCCCAAGGCTCC GGGCTTCGCCCAGATGCTCAAGGAGGGAGCGAAACACTTTTCAGAATTAGAAGAGGCTGTGTATAGAAACATACA AGCTTGCAAGGAGCTTGCCCAAACCACTCGTACAGCATATGGACGAAATGGAATGAAAAAAATGGTTATCAACTA CTTGGAGAAGTTGTTTGTGACAAATGATGCAGCGACTATTTTAAGAGAACTAGAAGTACAGCATCCTGCTAAA AATGACTGTAATGGCTTCTCATATGCAAGAGCAAGAAGTTGGAGATGGCACAAACATTGTTCTGGTATTTGCTGG AGCTCTCCTGGAATTAGCTGAAGAACTTCTGAGGATTGGCCTGTCAGTTTCAGAGGTCATAGAAGGTTATGAAAT AGCTTGCAGAAAAGCTCATGAGATTCTTCCTAATTTGGTACGTTGTTCTGCAAAAAAACCTTCGAGATGTTGATGA AGTCTCATCTCGTACCTCGTAATGTGTAAACAATATGGTAATGAAGTATTTCTGGCCAAGCTTATTGT TCAGGCATGCGTATCTATTTTTCCTGATTCTGGCCATTTCAAAGTTGATAACATCAGAGTTTGTAAAATTCTGGG CTGTGGTATCACTTCCTCTCAGTATTGCATGGCATGGTTTTTAAGAAGGAAACAGAAGGTGATGTACATCTGTC AAAGATGCAAAAATAGCAGTGTACTCTTGTCCTTTTGATGGCATGATAACAGAAACTAAGGGAACAGTGTTGATA AAGACTGATGAAGAATTGATGAATTTAAGTAAGGGAGAAAAATCTCATGGATGCATAAGTCAAAGCTATTGCT ATGATGTTAGTGAAGCTAAACTCAAAATGGGATGTCTGAAGACTCTGTAAAACAGTTGGTGCTACAGCTCTTCCT AGATTGACACCTCCTGTCCTTGAAGAAATGGGACACTGAGACAGTGTTTACCTCTCAGAAGTTGGAGATACTCAG GTGGTGGTTTTTAAGCATGAAAAGGAAGATGGCATCATTTCTACCATAGTACTTCAGGGCTCTACAGACAATCTG ATGGATGACATAGAAAGGGCAGTAGATGATGGTGTTAATACTTTCAAAGTTCTTACAAGGGATAAACGTCTTGTA CCCGGAGGTGGAGCAACAGAAATTGAATTAGCCAAACAGATCACATCATATGGAGAGACATGTCCTGGACTTGAA CAGTACGCTATTAAGAAGTTTGCTGAGGCGTTTGAAGCTATTCCCCGTGCACTGGCAGAAATACTCTGGAGAAAA CTCTGGAGTTAAGGCCAATGAAGTAATCTCTAAACTTTATGCAGTACCTCAAGAAGGAAATAAAAATGTTGGATT AGATACTGAGGCTGTAGTCCCTGCTGTAACGGACATGTTGGAAGCTGGTGTTCTAGATACTTACCTGGGAAAACA CTGGTCTATCAAACTCGCTGCTAATGCTGCAGTCACTGTACTTAGAGTGGGTCAGGTAATCATGGCAAAACCAGA TGGTGGGCCCAAGCCTCCAAGTGGGAAGAAGACTGGGATGATGACCAAAATGATTGAAATTGGCTTAATTTTTA CTGTAGGTGAAGGCTGTATTTGTAGTAGTATTCTAAGAATCGCGTGATGTTTTCTTATTCTCCTTACATTAAGAG GTATTTTGTGTTTGTATTCTTGGCTGGATGTTATAATAAACATATTGTTACTGTC

357/6881 FIGURE 328

GTGGGTAGGAGCTTGCTTATAGAAAAGTGGAATCGAGTAGTCCTTGCTGGTGGAGCCGCTGCCGCCAGGGAACTC AGGGCCGGCTCCTGTTCCTTCAAGAGTGCTGGAGGCCAAACTTGAAATACAAGTTTAATGTTCCTCGTCGGGCAA AAGATAAGGATCCGATCTCCCCCGGCCCGGTGTGCAGCAGGAGCGACCAACCCCGACCCGGGTTAAAACTCCCAG GGACTCTTCGCTGCCACCTCTTGTTCTCTCCCCCGTTCCCACTCGGGGTCTCCCTCAGGGCCGGGAGGCACA GCGGTCCCTGCTTGCTGAGGGGCTGGATGTACGCATCCGCAGGTTCCCGCGGACTTGGGGGCCCCGCTGAGCCC CGGCGCCGCAGAAGACTTGTGTTTGCCTCCTGCAGCCTCAACCCGGAGGGCAGCGAGGGCCTACCACC<u>ATG</u>ATC CGGGTGGCCCTGGCCGAGCTGCAGGAGGCCGATGGCCAGTGTCCGGTCGACCGCAGCCTGCTGAAGTTGAAAATG GTGCAGGTCGTGTTTCGACACGGGGCTCGGAGTCCTCTCAAGCCGCTCCCGCTGGAGGAGCAGGTAGAGTGGAAC CCCCAGCTATTAGAGGTCCCACCCCAAACTCAGTTTGATTACACAGTCACCAATCTAGCTGGTGGTCCGAAACCA TATTCTCCTTACGACTCTCAATACCATGAGACCACCCTGAAGGGGGGCATGTTTGCTGGGCAGCTGACCAAGGTG ACCTTCAACCCACAGGAGGTCTTTATTCGTTCCACTAACATTTTTCGGAATCTGGAGTCCACCCGTTGTTTGCTG GCTGGGCTTTTCCAGTGTCAGAAAGAAGGACCCATCATCATCCACACTGATGAAGCAGATTCAGAAGTCTTGTAT CCCAACTACCAAAGCTGCTGGAGCCTGAGGCAGAGAACCAGAGGCCGGAGGCAGACTGCCTCTTTACAGCCAGGA ATCTCAGAGGATTTGAAAAAGGTGAAGGACAGGATGGGCATTGACAGTAGTGATAAAGTGGACTTCTTCATCCTC CTGGACAACGTGGCTGCCGAGCAGGCACAACCTCCCAAGCTGCCCCATGCTGAAGAGATTTGCACGGATGATC GAACAGAGAGCTGTGGACACATCCTTGTACATACTGCCCAAGGAAGACAGGGAAAGTCTTCAGATGGCAGTAGGC CCATTCCTCCACATCCTAGAGAGCAACCTGCTGAAAGCCATGGACTCTGCCACTGCCCCCGACAAGATCAGAAAG CTGTATCTCTATGCGGCTCATGATGTGACCTTCATACCGCTCTTAATGACCCTGGGGATTTTTGACCACAAATGG CCACCGTTTGCTGTTGACCTGACCATGGAACTTTACCAGCACCTGGAATCTAAGGAGTGGTTTGTGCAGCTCTAT TACCACGGGAAGGAGCAGGTGCCGAGAGGTTGCCCTGATGGGCTCTGCCCGCTGGACATGTTCTTGAATGCCATG TCAGTTTATACCTTAAGCCCAGAAAAATACCATGCACTCTGCTCTCAAACTCAGGTGATGGAAGTTGGAAATGAA AAAAAAAAAAA

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MITGVFSMRLWTPVGVLTSLAYCLHQRRVALAELQEADGQCPVDRSLLKLKMVQVVFRHGARSPLKPLPLEEQVE WNPQLLEVPPQTQFDYTVTNLAGGPKPYSPYDSQYHETTLKGGMFAGQLTKVGMQQMFALGERLRKNYVEDIPFL SPTFNPQEVFIRSTNIFRNLESTRCLLAGLFQCQKEGPIIIHTDEADSEVLYPNYQSCWSLRQRTRGRRQTASLQ PGISEDLKKVKDRMGIDSSDKVDFFILLDNVAAEQAHNLPSCPMLKRFARMIEQRAVDTSLYILPKEDRESLQMA VGPFLHILESNLLKAMDSATAPDKIRKLYLYAAHDVTFIPLLMTLGIFDHKWPPFAVDLTMELYQHLESKEWFVQ LYYHGKEQVPRGCPDGLCPLDMFLNAMSVYTLSPEKYHALCSQTQVMEVGNEE

359/6881 FIGURE 330

360/6881 FIGURE 331

TGACTTGCTCACTATCATGAACTCAAAAGAAACTAGCAATTTTTTAGACTTCTTTTGGGATCCTTGTACCGCATC
CTATACTGCTTTTATGTTCATGTGTGCATTTGTGTACATGTATACACATATTACTCCATAACGAAGCACAGTCTT
CTTTTATACCTTTCCTGGTTGGGGTAGTAGAGGAATTTTACAGCCTACAATCAGACACACTCCAGAAGAAGAAGAGGG
AATATGTATGATACCTTAAAAATCAGCACATTTAACAAAGTATAACTTACTCATGGTTACAACTAAGTTAATGTT
TTTTCCCTTTATTTTTCAAAAGGCTCATTTTTCTCCATTTCTCACTATCAAAGTCAAGAACTGCCCAATGGCTC
TGTCAAGGAGGGCTCCAGCTCCTACTCCCACTTCTTGGAAGTCCACCAGATACTACAGAGGAAGAAGA
TCATAAGCCTAAACTCTGCAGGCTGGCTAAAGGTGAAAAATGGCTATGGCTTTCACTTAAATGCGATTCGGGGTCT
GCCAGGCTCATTCATCAAAGAGGGTACAGAAGGGCGGTCCTGCTGACTTGGCTGGGCTAGAGGATGAGGATGACACTAT
CATTGAAGTGAATGGGGTGAATGTGCTAGATGAACCCTATGAGAAGGTGGTGGATAGAAAATCCCTATTGTTTCCTC
CCTGGCTGATCCACTTCTAGTCTGTGGAAAGAAGAGCCTATGATTATTTCCAAGCTAAGAAAATCCCTATTGTTTCCTC
CCTGGCTGATCCACTTGACACCCCTCCAGATTCTAAAGAAGGAATAGTGGTGGAGTCAAAGCATGACTCGCACAT
GGCAAAAGAACGGGCCCCACAGTACAGCCTCACATTCTTCTCCAATTCTGAAGATACAGAGATGTGATGAAAACA
AGCGGCTATTGCAGACGCCTAATTTATGCTTAACTTAGGAAGAGATAAGGCTTCTTGAGCACCAAAGATGATTCA
TAACTCTGTATAGGTGACAGCTGCTTATAAAAAGCATCTTAGCAGATAAGCCTATTAAAATTGTGCTTTTTTTAACAA

GTCCCAACTCTTGGACTCCATTTGCTATTCTCTTCTTCTCCCCCACACCTATCTGGTGGTGGTAGTGGGCGTTT ATATTTGCGTTCCTTTCATTCATTCTAAAATCTCTTAAAAATTTTGGGTTGGGGGTATTGGGGAAGGCAGGAAA AACAGATCCCCGGAGGAGGTGACAGAGTTAGTCCTTGATAATTGCCTGTGTGTCAATGGGGAAATTGAAGGCCTG ${\tt AATGATACTTCAAAGAACTAGAATTTCTGAGTATGGCTAATGTGGAACTAAGTTCGCTGGCCCGGCTTCCCAGC}$ TTAAATAAACTTCGAAAATTGGAGCTTAGTGATAATATAATTTCTGGAGGCTTGGAAGTCCTGGCAGAAAATGT CCAAATCTTACCTACCTCAATCTGAGTGGAAACAAAATAAAAGATCTCAGTACAGTAGAAGCTCTGCAAAATCTT AAAAATTTGAAAAGTCTTGACCTGTTTAACTGTGAGATCACAAACCTGGAAGATTATAGAGAAAGTATTTTTGAA CTACTGCAGCAAATCACATACTTAGATGGATTTGATCAGGAGGATAATGAAGCGCCGGACTCTGAAGAGGAGGAT GATGAGGATGGAGATGAAGATGAAGAGGAAGAGGAAAATGAAGCTGGTCCACCGGAAGGATATGAGGAAGAG GAGGAGGAAGAGGAAGAGGATGAGGATGAAGATGAAGATGAAGCAGGTTCAGAGTTGGGAGAGGGA GAAGAGGAAGTGGGCCTCTCATACTTAATGAAAGAAGAATTCAGGATGAAGAAGATGATGATGACTATGTTGAA ${\tt GGAGAGGAAGAAGATGAC} {\tt TAG} {\tt ATCATTCTAAGACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACCAGATTCTCTAATGTTTCTGGGTGTGCAATAGAGACCAGATTCACAGATCACAATCACAGATCACAGATCACAGATCACAGATCACAGATCACAGATCACAGATCACAACAAGATC$ $\tt ATCTTTGTTTCTTCATGTACGATAGCTATCCCTACAGAAGATAATGTGTAACTTTTTATAGGAAAAGTGTGGTTT$ TTGACTCCCATTGTGGAATTCCCTAGCAATTTATTTAGACTTAATTTTTTAAATTCAAGCTTACTGTATTAGTCA

MEMKKKINLELRNRSPEEVTELVLDNCLCVNGEIEGLNDTFKELEFLSMANVELSSLARLPSLNKLRKLELSDNI ISGGLEVLAEKCPNLTYLNLSGNKIKDLSTVEALQNLKNLKSLDLFNCEITNLEDYRESIFELLQQITYLDGFDQ EDNEAPDSEEEDDEDGDEDEEEEENEAGPPEGYEEEEEEEEEEEDEDEDEDEAGSELGEGEEEVGLSYLMKEE IQDEEDDDDYVEEGEEEEEEEGGLRGEKRKRDAEDDGEEEDD

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GTGGGGTCGCGTTGCCACCCCACGCGGACTCCCCAGCTGGCGCGCCCCTCCCATTTGCCTGTCCTGGTCAGGCCC ${\tt CCTTCGCGCTTTTCTTGATCACTGTGGCTGGGGACCCGCTTCGCGTTATCATCCTGGTCGCAGGGGCATTTTTCT}$ TCCAGTACGGCCTCCTGATTTTTGGTGCTGCTGTCTCTGTCCTTCTACAGGAGGTGTTCCGCTTTGCCTACTACA TGGCCTATGTTTCTGGTCTCCCTTCGGTATCATCAGTGGTGTCTTCTCTGTTATCAATATTTTGGCTGATGCAC TTGGGCCAGGTGTGGTTGGGATCCATGGAGACTCACCCTATTACTTCCTGACTTCAGCCTTTCTGACAGCAGCCA TTATCCTGCTCCATACCTTTTGGGGAGTTGTGTTCTTTGATGCCTGTGAGAGAGGAGACGGTACTGGGCTTTGGGCC TGGTGGTTGGGAGTCACCTACTGACATCGGGACTGACATTCCTGAACCCCTGGTATGAGGCCAGCCTGCTGCCCA TCTATGCAGTCACTGTTTCCATGGGGCTCTGGGCCTTCATCACAGCTGGAGGGTCCCTCCGAAGTATTCAGCGCA GCTCTTGTGTAAGGACTGACTACCTGGAC<u>TGA</u>TCGCCTGACAGATCCCACCTGCCTGTCCACTGCCCATGACTGA ${\tt GCCCAGCCCAGCCCGGGGTCCATTGCCCACATTCTCTGTCTCTCTTCTCGTCGGTCTACCCCACTACCTCCAGGG}$ GGTGGGTTTGAATCTGCACTTATCCCCACCACCTGGGGACCCCCTTGTTGTCCAGGACTCCCCTGTGTCAGT GCTCTGCTCTCACCCTGCCCAAGACTCACCTCCCTTCCCCTCTGCAGGCCGACGGCAGGACGACAGTCGGGTGAT GGTGTATTCTGCCCTGCGCATCCCACCCGAGGACTGAGGGAACCTAGGGGGGACCCCTGGGCCTGGGGTGCCCTC CTGATGTCCTCGCCCTGTATTTCTCCATCTCCAGTTCTGGACAGTGCAGGTTGCCAAGAAAAGGGACCTAGTTTA GCCATTGCCCTGGAGATGAAATTAATGGAGGCTCAAGGATAGATGAGCTCTGAGTTTCTCAGTACTCCCTCAAGA CTGGACATCTTGGTCTTTTTCTCAGGCCTGAGGGGGAACCATTTTTGGTGTGATAAATACCCTAAACTGCCTTTT TTTCTTTTTGAGGTGGGGGGGGGGGGGGGTATATTGGAACTCTTCTAACCTCCTTGGGCTATATTTTCTCTCCC GTGCATGTTTGGGAACTGGCATTACTGGAACTAATGGTTTTAACCTCCTTAACCACCAGCATCCCTCCTCTCCCC AAGGTGAAGTGGAGGTGCTGTGGTGAGCTGCCACTCCAGAGCTGCAGTGCCACTGGAGGAGTCAGACTACCAT ANACTGTATCATTTTCTGCTGAGGGTGGAGTGTCCCATCCTTTTAATCAAGGTGATTGTGATTTTGACTAATAAA AAAGAATTTGTAAAAAA

MGAAVFFGCTFVAFGPAFALFLITVAGDPLRVIILVAGAFFWLVSLLLASVVWFILVHVTDRSDARLQYGLLIFG AAVSVLLQEVFRFAYYKLLKKADEGLASLSEDGRSPISIRQMAYVSGLSFGIISGVFSVINILADALGPGVVGIH GDSPYYFLTSAFLTAAIILLHTFWGVVFFDACERRRYWALGLVVGSHLLTSGLTFLNPWYEASLLPIYAVTVSMG LWAFITAGGSLRSIQRSSCVRTDYLD

MAKHLKFIARTVMVQEGNVESAYRTLNRILTMDGLIEDIKHRRYYEKPCRRRQRESYERCRRIYNMEMARKINFL MRKNRADPWQGC

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ATCTCTCCACTTCTGAGAAGCATCTGTGACATCACTGAAATTTTCAATCAGTATGTCTCTCATGATTGTGATGGA GCAGCATTAACTAAGAAAGACCTGAAGAACCTCCTTGAAAGGGAATTTGGAGCTGTGCTTCGGAGACCACATGAC CCTAAGACGGTAGATCTGATCCTGGAACTTCTGGATCTTGACAGTAATGGGCGTGTCGATTTCAACGAATTCCTC CTATTTATTTTCAAAGTGGCTCAAGCTTGTTACTATGCTCTCGGCCAGGCCACGGGACTGGATGAGGAAGCGA GCCCGGTGTGACGGAAAGGAGACCTGTTACAAGATCGCAGGCAAGAAGAAGACCAAAGGAGATTCGAGCCCCGG GGAGAGGAGCAAAGTGAGAAACAAGAGCGACTTGAACAGCGCGACAGGCACCGCCGACGAGGAGCTGTGGCGG CAAAGGCAAGAATGGCAAGAACGGGAAGAGCGCCGTGCAGAGGAAGAGCAGCTGCAGAGTTGCAAAGGTCACGAA AAACAGCAGCAAAGGCGAGAGCGGCAAGACAGAGTGTTCCAGGAGGAAGAAGAGAAAGAGTGGAGGAAGCGCGAG ACAGTGCTCCGGAAGGAAGAAGAGAAGCGCGAACGTTGGCTGAAGCTCGAGGAGGAGGAGGAGGAGCAGCAGCAG GAGAGGCGCGAGCAACTAAGGCGGGAGCAAGAGGAGGAGGCGCGAGCAGCGGCTGAAGCGCCAGGAGGAGGAA GAGAGGCTCCAGCAGCGGTTGAGGAGCGAGCAACAACTAAGACGCGAGCAGGAGGAGGAGGCGCGAGCAGCTGCTG AAGCGCGAGGAGGAGAAGAGGCTCGAGCAGGAGAGGAGGAGCAGCAGCGGCTGAAGCGCGAGCAGGAGGAGGAGGAGGAGCGC GATCAGCTGCTGAAGCGCGAGGAGGAGGAGGCGCCCAGCAGCGGCTGAAGCGCGAGCAGGAAGAGAGGCTCGAGCAG CGACTGAAGCGCGAGGAGGTGGAGAGACTCGAGCAGGAGGAGGAGGCGCGAGCAGCGGCTGAAGCGCGAGGAGCCG GAGGAAGAGAGGCGCCAGCAGCTGCTGAAGAGCGAGGAGGAGGAGAGGGCGCCAGCAGCAACTAAGGCGCGAG CATGAGGAAGAGGCGCGAGCAGGAGCTAGCTGAGGAGGAGCAGGAACAGGCCCGGGAGCGGATTAAGAGCCGC ATCCCGAAGTGGCAGTGGCAGCTAGAAAGCGAGGCCGACGCCACGCAAAGCAAAGTCTACTCGAGGCCCCGCAAG GAGGAACGGGCTCACCGGCAGCAGCAGGAAGAGGAGCAGCGCCGGGACTTCACATGGCAGTGGCAGGCGGAGGAA AAGAGCGAGAGGGCCGTCAGAGGCTGTCGGCCAGGCCCCCATTGCGGGAGCAGCGGGAGAGGCAGCTGAGGGCC GAGGAGCGCCAGCAGCGGAACAACGGTTTCTCCCGGAGGAGGAGGAGGAGCAGCAGCGGCGCCAGCGACGC GAGAGGGAGAAAGAGCTGCAGTTCCTGGAGGAAGAGGAGCAGCTCCAGCGGCGGGAGCGTGCCCAACAGCTCCAG GAGGAGGAGGACGCCTCCAGGAGGATCAGGAGAGGAGGCGAAGCCAGGAGCAGCGCCGCGACCAAAAATGGAGG CAGGAGAGACAATACCGCGAGGAAGAGCAGCTGCAGCAGGAGGAAGAGCAGCTGCTGAGAGAAGAGGAACGGGAGAAA GAGCAGCTGCTGAGAGAGGAACGGGAGAAGAGAGAGGCGCCAGGAGTGGGAGAGGCAGTACCGCAAAAAAGACGAG CTGCAGCAGGAAGAAGAGCAGCTGCTGAGAGAGAGAACGGGAGAAAAGAAGACTCCAGGAGCGGGAGAGGCAATAT CGGGAGGAAGAGGAGCTGCAGCAGGAGGAAGAGCAGCTGCTGGGAGAGGAACGGGAGAAGGCGCCAGGAG CTGGAGAGGCAATATCGGAAGGAAGAGGAGCTGCAGCAGGAGGAAGAGCAGCTGCTGAGAGAAGAGCAGCAGAAGA AGAAGGCGCCAGGAGCGGGAGGGCAATGCAGAGAGAATGAACAGTTCCGGCAGTTGGAAGATTCCCAGCTGCGC CGCTGGCAGCGCGACAGGCATTTCCCAGAGGAAGAACAGCTGGAGCGAGAAGAGCAAAAGGAAGCCAAAAGG GACAGAAAATTCCGCGAGGAGGAACAGCTGCTCCAGGAAAGGGAGGAACAGCCGCTGCGCCGCCAAGAGCGTGAC AGAAAATTCCGCGAAGAGGAACTGCGCCATCAGGAACAAGGGAGAAAATTCCTCGAGGAGGAACAGCGGCTGCGC CGCCAGGAACGGGAGAAAATTCCTTAAGGAGGAACAGCAGCTGCGCTGCCAGGAGCGCGAGCAACAGCTGCGT CAGGACCGCGACAGAAAATTCCGCGAGGAGGAACAGCAGCTGAGCCGCCAAGAGCGTGACAGAAAATTCCGTGAA GAGGAACAGCAGGTGCGCCGCCAGGAACGAGAGAAAATTCCTGGAGGAGGAACAGCAGCTGCGCCAGGAGCGT CACAGAAAATTCCGCGAAGAGGAACAGCTGCTCCAGGAAAGGGAAGAACAGCAGCTGCACCGCCAAGAGCGTGAC AGAAAATTCCTGGAGGAGGAACAACAGCTGCGCCGCCAAGAGCGTGACAGAAAATTCCGCGAACAGGAACTGCGC AGTCAGGAACCAGAGAGAAAATTCCTCGAGGAGGAACAGCAGCTGCACCGCCAGCAACGGCAGAAAAATTCCTC CAGGAGGAACAGCAGCTGCGCCGCCAGGAGCGCGGCGAACAGCGGCGTCAGGACCGTGACAGAAAATTCCGCGAG

368/6881 FIGURE 338B

GAGGAACAGCTGCGCCAGGAGAGGGAGGAACAGCAGCTGAGCCGCCAAGAGCGTGACAGAAAATTCCGTTTAGAG GAACAGAAAGTGCGCCGCCAGGAACAAGAGAGAAAATTCATGGAGGACGAACAGCAGCTGCGCCGCCAGGAGGGC CAACAACAGCTGCGCCAGGAGCGCGACAGAAAATTCCGCGAAGACGACAGCTGCTCCAGGAAAGGGAAGAACAG CAGCTGCACCGCCAAGAGCGTGACAGAAAATTCCTCGAGGAGGAACCGCAGCTGCGCCGCCAGGAGCGCGAACAA CAGCTGCGTCACGACCGCGACAGAAAATTCCGTGAAGAGGAACAGCTGCTCCAGGAAGGGGAAGAGCAGCAGCTG CGCCGCCAAGAGCGTGACAGAAAATTCCGCGAAGAGGAACAGCAGCTCCGCCGTCAGGAACGAGAGAAAAATTC CTCCAGGAGGAACAGCAGCTGCGCCAGGAACTGGAGAGAAATTCCGTGAGGAGGAACAGCTGCGCCAAGAA GAAGAACAGCAGCTGCGCCGCCAGGAGCGCGACAGAAAATTCCGCGAGGAGGAACAGCTCCGCCAGGAGAGGGAG GAACAGCAGCTGCGCAGCCAAGAGTCTGACAGAAAATTCCGCGAGGAGGAACAGCTACGCCAGGAGAGGAAGAA CAGCAGCTGCGCCCCCAACAGCGTGACGGAAAGTATCGCTGGGAAGAAGAGCAGCTCCAACTTGAGGAACAAGAG CAGAGGCTGCGGCAGGAGCCGGCAGTACCGGCCGGAGGAGCAGTTTGCCACGCAGGAGAAGAGTCGTCGT GAGGAACAAGAACTATGGCAAGAAGAGGAGCAGAAACGTCGCCAGGAACGGGAAAGGAAATTACGGGAAGAACAC ATCCGCCGCCAGCAGAAGGAGGAACAGAGGCACCGCCAAGTCGGGGAGATAAAATCCCAAGAAGGGAAGGGCCAT GGGCGGCTTCTGGAGCCCGGCACTCATCAGTTTGCCAGTGTCCCAGTGCGCTCCAGCCCTCTCTATGAGTACATC CAAGAGCAGAGATCTCAATACCGCCCT<u>TAA</u>

MSPLLRSICDITEIFNQYVSHDCDGAALTKKDLKNLLEREFGAVLRRPHDPKTVDLILELLDLDSNGRVDFNEFL LFIFKVAQACYYALGQATGLDEEKRARCDGKESLLQDRRQEEDQRRFEPRDRQLEEEPGQRRRQKRQEQERELAE GEEQSEKQERLEQRDRQRRDEELWRQRQEWQEREERRAEEEQLQSCKGHETEEFPDEEQLRRRELLELRRKGREE KQQQRRERQDRVFQEEEEKEWRKRETVLRKEEEKRERWLKLEEEERREQQERREQQLRREQEERREQRLKRQEEEERLOORLRSEOOLRREOEERREQLLKREEEKRLEQERREQRLKREQEERRDQLLKREEERRQQRLKREQEERLEQ $\verb|RLKREEVERLEQEERREQRLKREEPEEERRQQLLKSEEQEERRQQQLRREQQERREQRLKREEEEERLEQRLKRE|$ HEEERREQELAEEEQEQARERIKSRIPKWQWQLESEADARQSKVYSRPRKQEGQRRRQEQEEKRRRRESELQWQE ${\tt EERAHRQQQEEEQRRDFTWQWQAEEKSERGRQRLSARPPLREQRERQLRAEERQQREQRFLPEEEEKEQRRRQRR$ EREKELQFLEEEEQLQRRERAQQLQEEEDGLQEDQERRRSQEQRRDQKWRWQLEEERKRRRHTLYAKPALQEQLR KEQQLLQEEEEELQREEREKRRRQEQERQYREEEQLQQEEEQLLREEREKRRRQERERQYRKDKKLQQKEEQLLG EEPEKRRRQEREKKYREEEELQQEEEQLLREEREKRRRQEWERQYRKKDELQQEEEQLLREEREKRRLQERERQY ${\tt REEEELQQEEEQLLGEERETRRQELERQYRKEEELQQEEEQLLREEPEKRRRQERERQCRENEQFRQLEDSQLR}$ DRQSQQDLQHLLGEQQERDREQERRRWQQRDRHFPEEEQLEREEQKEAKRRDRKSQEEKQLLREEREEKRRRQET DRKFREEEQLLQEREEQPLRRQERDRKFREEELRHQEQGRKFLEEEQRLRRQERERKFLKEEQQLRCQEREQQLR QDRDRKFREEEQQLSRQERDRKFREEEQQVRRQERERKFLEEEQQLRQERHRKFREEEQLLQEREEQQLHRQERD RKFLEEEQQLRRQERDRKFREQELRSQEPERKFLEEEQQLHRQQRQRKFLQEEQQLRRQERGQQRRQDRDRKFRE EEQLRQEREEQQLSRQERDRKFRLEEQKVRRQEQERKFMEDEQQLRRQEGQQQLRQERDRKFREDEQLLQEREEQ QLHRQERDRKFLEEEPQLRRQEREQQLRHDRDRKFREEEQLLQEGEEQQLRRQERDRKFREEEQQLRRQERERKF LQEEQQLRRQELERKFREEEQLRQETEQEQLRRQERYRKILEEEQLRPEREEQQLRRQERDRKFREEEQLRQERE EQQLRSQESDRKFREEEQLRQEREEQQLRPQQRDGKYRWEEEQLQLEEQEQRLRQERDRQYRAEEQFATQEKSRR EEQELWQEEEQKRRQERERKLREEHIRRQQKEEQRHRQVGEIKSQEGKGHGRLLEPGTHQFASVPVRSSPLYEYI QEQRSQYRP

MAKISSPTETERCIESLIAVFQKYAGKDGYNYTLSKTEFLSFMNTELAAFTKNQKDPGVLDRMMKKLDTNSDGQL DFSEFLNLIGGLAMACHDSFLKAVPSQKRT

372/6881 FIGURE 342

CCGGTGGGCGGGAAGCCCGCTTCTGGGGAGGTGCCGCCCTCCACTGGCGCAGGCCGCGAGACCCCCAGACG GACCTCCTAGGGCTAATCTGATAGTGCCTCTGAGGTCGATAGGACTCCACGTGCCACTCCCTGCAGGGTCATCCA GCAAGTAATTCCTAGACCCGTAGGTGGCCGCAGAGCCGGTTACCTCTGGTTCTGCGCCAGCGTGCCCCACCCGCA GGACGGCCGGGTTCTTTGATTTGTACACTTTCTAAAACCAAACCCGAGAGGAAGGCCAGGCTCAGGGTGGGGATG GCCTCTGCGAGGGGGTCCGGGAGCGAGGGCAGGGCGTGGGCCGCGCGCCCGGGGTCGGGGGAGTCGGGGGCAGG CCCTCTACCCACCCGCCGCACGTACTAAGGAAGGCGCACAGCCCGCCGCGCGCTCCGCCTCCCGCCCCGCGTCCAGC ${\tt TCGCCCAGCTCGCCCAGCGTCCGCCGCGCCTCGGCCAAGGCTTCAACGGACCACACCAAA\underline{{\tt ATG}}{\tt CCATCTCAAATG}$ GAACACGCCATGGAAACCATGATGTTTACATTTCACAAATTCGCTGGGGATAAAGGCTACTTAACAAAGGAGGAC $\tt CTGAGAGTACTCATGGAAAAGGAGTTCCCTGGATTTTTGGAAAATCAAAAAGACCCTCTGGCTGTGGACAAAATA$ ATGAAGGACCTGGACCAGTGTAGAGATGGCAAAGTGGGCTTCCAGAGCTTCTTTTCCCTAATTGCGGGCCTCACC ${\tt ATTGCATGCAATGACTATTTTGTAGTACACATGAAGCAGAAGGGAAAGAAGT{\tt AGGCAGAAATGAGCAGTTCGCTC}}$ CTCCCTGATAAGAGTTGTCCCAAAGGGTCGCTTAAGGAATCTGCCCCACAGCTTCCCCCATAGAAGGATTTCATG

 ${\tt MPSQMEHAMETMMFTFHKFAGDKGYLTKEDLRVLMEKEFPGFLENQKDPLAVDKIMKDLDQCRDGKVGFQSFFSL} \\ {\tt IAGLIIACNDYFVVHMKQKGKK} \\$

GTGAGGCGCGAGGCGGCCACTCGACGGCTGACTGGAGCAGCGGTAAAGGCGAGGATGGAGACCGAAGGATATAA GTCAAAGAGTACAGCAGAAAATGTCTCTACTGAACGGACTTCTTGGACAAGCCTGTCCACCATTCAGAAAATAGCCC TGGGCCTTGGGATCCCAGCCAGTGCAACAGTTGCCTATATCCTATACCGCAGGTATAGGGAAAGCAGAGAAGACA GGCTGACATTTGTTGGGGAAGATGACATTGAGATAGAGATGCGGGTTCCCCAGGAGGCTGTGAAACTCATCATTG GCGATGAGCGAGTGCTGCTTATCAGTGGTTTTCCTGTTCAGGTGTGCAAGGCCAAAGCAGCAATCCATCAGATCC TGACAGAGAATACCCCAGTGTCTGAGCAGCTTTCAGTTCCCCAGAGATCTGTGGGCAGAATCATAGGGAGAGGCG GCGAGACAATTCGTTCTATCTGTAAGGCATCTGGAGCCAAAATTACCTGTGACAAAGAATCAGAAGGACATTAC TTTCAGAAGATGAAGAACTTCGGAAGAGAATTGCTCATTCTGCAGAAACCAGGGTCCCACGCAAACAGCCAATCA GTGTGAGAAGAGACATGACAGAGCCAGGTGGAGCTGGAGAGCCAGCATTATGGAAAAACACCAGTTCTAGCA TGGAGCCGACTGCACCCTGGTGACTCCTCCACCCAAAGGAGGGGGGCGACATGGCTGTGGTAGTGTCAAAGGAAG GTTCCTGGGAGAACCTAGTGATGACAGCTTTCAGAAGTCTGAAGCCCAGGCCATCCCAGAGATGCCCATGTTTG AAATCCCCAGTCCTGACTTCAGTTTTCATGCTGATGAGTACCTAGAAGTCTACGTTTCTGCTTCTGAGCACCCTA ACCACTTCTGGATCCAGATCGTTGGCTCCCGCAGCCTGCAATTGGATAAGCTTGTCAATGAGATGACCCAGCACT ATGAGAATAGTGTGCCTGAAGACTTGACTGTGCATGTAGGAGACATTGTAGCAGCACCTTTACCTACAAATGGTT CCTGGTATCGAGCCCGGGTCCTCGGCACCTTGGAGAATGGGAACTTGGACCTCTATTTTGTTGACTTTGGAGATA ATGGAGATTGCCCACTGAAGGACCTCAGGGCTCTCAGGAGTGACTTCCTAAGCCTTCCATTTCAAGCAATAGAAT ATTGTGCTGACTGGAAGCCTCTGGTAGCCAAGATCTCTAGCTATGTCCAGACTGGGATCTCAACTTGGCCAAAGA TCTACTTATATGATACTAGCAATGGGAAGAACTTGATATTGGGCTAGAATTAGTACACAAAGGATACGCAATTG AGCTTCCTGAAGACATAGAAGAAAACAGAGCTGTCCCAGACATGTTGAAGGACATGGCCACAGAAACAGATGCCT CTCTCAGCACGTTGCTCACTGAGACCAAAAAGAGCTCTGGAGAGATAACACATACCCTGTCCTGCCTCAGCTTAT TCAGCCATCTGCTTTGCTGTATGTTGCCTGCAATGAACTCGCTGAAGCATGCTCAGCCCTGGAACTGGTGCTACC $AGAGTTCCGTAGGGAACCTTTACTCTTTAGAGGTTCCC\underline{TGA}$ TATAAATCATTCATAAGACTTCCTACCCTGGAAA ATGAGTAATGTCTCATTCTTACCTGCAGTTTGTTACTATGTATAAAAGTCTTTTTCTTTAATATGCCTTTAAGTC TTACCTGTTTACAGCCCATTCTGATGGGTTCTTTGTCATTCTGTTAGTATAACCCAGTACTTTTCCTGCTGCCTG GAATGCCCTCTTCTATGTTACCTATTCTGTCCGTTGAGATGCCCCAACTTGGGCCAAAGCCAAGAGATCTATGTG AAAAA

MSTERTSWTSLSTIQKIALGLGIPASATVAYILYRRYRESREERLTFVGEDDIEIEMRVPQEAVKLIIGRQGANI
KQLRKQTGARIDVDTEDVGDERVLLISGFPVQVCKAKAAIHQILTENTPVSEQLSVPQRSVGRIIGRGGETIRSI
CKASGAKITCDKESEGTLLLSRLIKISGTQKEVAAAKHLILEKVSEDEELRKRIAHSAETRVPRKQPISVRREDM
TEPGGAGEPALWKNTSSSMEPTAPLVTPPPKGGGDMAVVVSKEGSWEKPSDDSFQKSEAQAIPEMPMFEIPSPDF
SFHADEYLEVYVSASEHPNHFWIQIVGSRSLQLDKLVNEMTQHYENSVPEDLTVHVGDIVAAPLPTNGSWYRARV
LGTLENGNLDLYFVDFGDNGDCPLKDLRALRSDFLSLPFQAIECSLARIAPSGDQWEEEALDEFDRLTHCADWKP
LVAKISSYVQTGISTWPKIYLYDTSNGKKLDIGLELVHKGYAIELPEDIEENRAVPDMLKDMATETDASLSTLLT
ETKKSSGEITHTLSCLSLSEAASMSGDDNLEDDYLLGSLGFSLLSHLLCCMLPAMNSLKHAQPWNWCYQSSVGNL
YSLEVP

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MEAFLGSRSGLWAGGPAPGQFYRIPSTPDSFMDPASALYRGPITRTQNPMVTGTSVLGVKFEGGVVIAADMLGSY GSLARFRNISRIMRVNNSTMLGASGDYADFQYLKQVLGQMVIDEELLGDGHSYSPRAIHSWLTRAMYSRRSKMNP LWNTMVIGGYADGESFLGYVDMLGVAYEAPSLATGYGAYLAQPLLREVLEKQPVLSQTEARDLVERCMRVLYYRD ARSYNRFQTATVTEKGVEIEGPLSTETNWDIAHMISGFE

378/6881 FIGURE 348

GCACTATGGTGTGTGTGGACAACAGTGAGTATATGCGGAATGGAGACTTCTTACCCACCAGGCTGCAGGCCCAGC AGGATGCTGTCAACATAGTTTGTCATTCAAAGACCCGCAGCAACCCTGAGAACAACGTGGGCCTTATCACACTGG CTAATGACTGTGAAGTGCTGACCACACTCACCCCAGACACTGGCCGTATCCTGTCCAAGCTACATACTGTCCAAC CCAAGGGCAAGATCACCTTCTGCACGGGCATCCGCGTGGCCCATCTGGCTCTGAAGCACCGACAAGGCAAGAATC ACAAGATGCGCATCATTGCCTTTGTGGGAAGCCCAGTGGAGGACAATGAGAAGGATCTGGTGAAACTGGCTAAAC GCCTCAAGAAGGAGAAAGTAAATGTTGACATTATCAATTTTGGGGAAGAGAGGTGAACACAGAAAAGCTGACAG CCTTTGTAAACACGTTGAATGGCAAAGATGGAACCGGTTCTCATCTGGTGACAGTGCCTCCTGGGCCCAGTTTGG CTGATGCTCTCATCAGTTCTCCGATTTTGGCTGGTGAAGGTGGTGCCATGCTGGGTCTTGGTGCCAGTGACTTTG GGCAGGAGGAGGCCCGGCGGCCAGCTGCAGCTTCTGCTGCTGAGGCCGGGATTGCTACGACTGGGACTGAAG ACTCAGACGATGCCCTGCTGAAGATGACCATCAGCCAGCAAGAGTTTTGGCCGCACTGGGCTTCCTGACCTAAGCA GTATGACTGAGGAAGAGCAGATTGCTTATGCCATGCAGATGTCCCTGCAGGGAGCAGAGTTTGGCCAGGCGGAAT AGGACCCCGAGTTCCTTCAGAGTGTCCTAGAGAACCTCCCAGGTGTGGATCCCAACAATGAAGCCATTCGAAATG GGAGGGAAAGGGTAGCTGAGTCTGCTTAGGGGACTGCATGGGAAGCACGGAATATAGGGTTAGATGTGTTTATC TGTAACCATTACAGCCTAAATAAAGCTTGGCAACTTTT

MVLESTMVCVDNSEYMRNGDFLPTRLQAQQDAVNIVCHSKTRSNPENNVGLITLANDCEVLTTLTPDTGRILSKL HTVQPKGKITFCTGIRVAHLALKHRQGKNHKMRIIAFVGSPVEDNEKDLVKLAKRLKKEKVNVDIINFGEEEVNT EKLTAFVNTLNGKDGTGSHLVTVPPGPSLADALISSPILAGEGGAMLGLGASDFEFGVDPSADPELALALRVSME EQRQRQEEEARRAAAASAAEAGIATTGTEDSDDALLKMTISQQEFGRTGLPDLSSMTEEEQIAYAMQMSLQGAEF GQAESADIDASSAMDTSEPAKEEDDYDVMQDPEFLQSVLENLPGVDPNNEAIRNAMGSLASQATKDGKKDKKEED KK

380/6881 FIGURE 350

 $\tt CTGGTGAGGGGGTGCAGGTGGCGCAGTCTCGGTAGGCGGT{\color{red} \underline{ATG}} AGTTTGGCTGGGGGCCGGGCACCCCGGAA$ GACCGCTGGGAACCGGCTTTCTGGGCTTTTGGAGGCAGAGGAGGAGGAGGTTCTACCAGACGACTTATGGGGG TTTCACAGAGGAATCCGGAGATGATGAGTATCAAGGGGACCAGTCAGACACAGAGGACGAAGTGGACTCTGACTT CAAGGCCTATAAGGAACCTCTCAAGAGCTTAAGGCCTCGAAAGGTCAACACCCCGGCTGGTAGCTCTCAGAAGGC GCGAGAAGAGAGGCACTACTGCCATTAGAACTACAAGATGACGGCTCTGACAGTCGGAAGTCTATGCGTCAGTC TACAGCTGAGCATACACGACAAACGTTCCTTCGGGTACAGGAGGGCAGGGCCAGTCAAGACGGCGAAAGGGGCC CCACTGTGAGCGGCCACTAACCCAGGAGGAACTGCTCCGGGAGGCCAAGATCACAGAAGAGCTTAATTTACGGTC ACTGGAGACATATGAGCGGCTCGAGGCTGATAAAAAGAAGCAGGTTCATAAGAAGCGGAAGTGCCCCGGGCCCAT AATCACCTATCATTCAGTGACAGTGCCACTTGTTGGGGAGCCAGGCCCCAAGGAAGAACGTTGACATAGAAGG ACTTGATCCTGCTCCCTCGGTGTCTGCATTGACTCCTCATGCTGGGACCCGTCAACCCCCCTGCTCGCTG CTCACGTACCTTCATCACTTTTAGTGATGCAACTTTCGAGGAATGGTTCCCCCAAGGGCCGCCCCAAAAGT CCCTGTTCGTGAGGTCTGTCCAGTGACCCATCGTCCAGCCCTATACCGGGACCCTGTTACAGACATACCCTATGC CACTGCTCGAGCCTTCAAGATCATTCGTGAGGCTTACAAGAAGTACATTACTGCCCATGGACTGCCGCCCACTGC $\tt TGTCATTAAA \underline{\textbf{TGA}} \\ \textbf{AGGAGATGTCTAGTCCTCAGAAACTTCTTTCCTGCCCTGATTGGGGGCTCTTGCTGTTCCGTTT}$ CTTCTCCCTGCTTCTCCCCTTTGTCATCTCTGATCTTTGCCTAATCTGTTTCTTTTTCCTTTTCCCCTAGTTCTT ACAGGTTTCGTTGTGTTTTTTTAATCTAATAAAATAGAAAGATCCCTTTT

FIGURE 351

MSLAGGRAPRKTAGNRLSGLLEAEEEDEFYQTTYGGFTEESGDDEYQGDQSDTEDEVDSDFDIDEGDEPSSDGEA EEPRRKRRVVTKAYKEPLKSLRPRKVNTPAGSSQKAREEKALLPLELQDDGSDSRKSMRQSTAEHTRQTFLRVQE RQGQSRRKGPHCERPLTQEELLREAKITEELNLRSLETYERLEADKKKQVHKKRKCPGPIITYHSVTVPLVGEP GPKEENVDIEGLDPAPSVSALTPHAGTGPVNPPARCSRTFITFSDDATFEEWFPQGRPPKVPVREVCPVTHRPAL YRDPVTDIPYATARAFKIIREAYKKYITAHGLPPTASALGPGPPPPEPLPGSGPRALRQKIVIK

CCTGGCTTTGTGCATTGGGTTCTGGTGCCTGATGGACACATTTTTCCAGTTACAGGCCGAATGGTCTCAATGTAG GTCCCTCATAGCTTCCTAGAAAGAAACCACTTGTCAGTCTTCATGCTACAGCAACTTCTTTGTGGCCCATGGCCT TTCCTTGCTTAGATACTCCACATACTGTTCTCCCCGCAGGGGCGGCGGCCTTGAGGGGGCTGCAGAGGCACCCTCC CACGTCCCGCGCAGTGCAGTGCCTCCGCAGTCCAGAGGGGGAGCAGTGCGCCGGGGCTCCGAGCCGGACGGGTTTCG TAATCGCGTCGCCGCCTTCCGCCCTCAGCCGGCCCCACCTCTGCCGGCTCGTACTCGGCTCCCCACCTCGCC GCAGAGCTAGCCCGGGAAGCCCACACTGGCGGCCACGGAGCAGAGTCCCTCACCCCCACCAGCTGTAGCTGAACG GGTGCGCCCCGGGGTGGCCGTAGTCATCCACGCTCCTGGGGTGCGCAGGCTGAGGCCGCTGAAGAGTAGAAGGA TAAGGGTTGAGAACAGCAGAGAACTTCTAGGTAGAGTTGTGTAGTGGGGGGGAGACAGATACGGAATCTGTGTGAT TGAATATATTTGGGGAGGGAGGCTTAGGGCCTAGCCCTCTTTCCTCTTAAGCCCCCAGAAGACCTTTCCTGGGG AAGGGAAGGTTGGTGTTGGCCTGTCACTTGGCTGAAATATGGAGTCCACACCGCTTCTCCAGAGTCCCTCAGCA GCCCTCCATGTCTCGGGGTCTCCACACAGGGACCAGCTGCTGCCCCGGGCTTCTAGCCAGAATTGCCCATGCCAT TCTCTCGATTCTTTCTCTCCAGCTGCTTCATGTGAGGGCTTGTCAGGCCGCGGGTTGGAGGCCTTAGGGCC TGGCACCTCTTTCCCATCCCTTCTGCTCACCTCCCAACAGCTCTGAGACCCTCAAGTCCTAGTATGATCTTGGTG GGGGCGGGGGGGGGCTTCCCGGTTCCATATTTCACTCTTGCCATTTGGAACTCAGAGAGGTCGAGTTCTGAGCA CCACTTGGCTCTCAGGACGTGGCCTTATGAGGTCTAATCCTCATCCCTCCTGTTGTTTTCTCAGCCCCTTCCCTA TTCACTGTGGGGTTGGATTCGGGTGGCTCTTCCGCCTGGGCTGACCAGCTCAGGACTTCATTTTTCCTCAACCCA CTCTCTTCTGGCTGCTTTAAAGAAGAGTGGCCGCCAGTGGCTCTTACTTCCTTTTCTGGCTTTGTTCCCATCCCC CACTGCCCTGCGCTACCATCACATTCACCCTGACCTGTCTTCTTCACACTCTGACCCCACCCTCAAGTTTCAGAG ACCCTAATGTCCTAGGGAATGGAATTTCCTGGTCACTTCTCGTCATCATTGGTCATTTCATGCCAAGTCCCACAC ACACGCTTTCCCTCCACCCAGCTCTGGTCAGGTCCCTGGAAAAGAAACAGAAATGGCCTTGTTCTCCCACTGCC CCTTTCCCTCTCTCTCTCCCCCCTCTCTTCTCTCTCCCCAGCACTATCCACCTCTGTCCCTCAGCTTTG CCCACTGACCACAGCTCCCCTCTCTGGACAGCGTGTTTTAGCTTCCGCTCCTTCTGGTTACTCCCTTCCAGT GGTGAGAAGAGAAGAGAAAGCCCAGCCTCCTGGGTTCTCCCCTCCCCTAGAAGCTACATTTGAGTGTTTGTGTGA TCTCATCTCAAGGCTGTT

AGTCAGCACGGGGGTGCTGGAAGAGTCGGGAATAATAGCGCAGACCAATGAGCCTAGGGAGATGCTTTCATCGT CCGCCCTTCTTAGGAGGGGCTGCATTGCAGGGGGAGAGTGAACTGACAGACTCAGTCACTGAAGAGGGAAAAGGA GTGAGAAGACAAAGCCGTCAAAGCCCCAACAGCTTTGTATTTCTCCAGCCCGGCGCAGACCCCGGAGCTCCCGAG GTACAGTTCCTTTCTTTCTGGAGGATGCCCATCCCAGAACTGGATCTGTCGGAGGCTGGAAGGCCTGGGTCTGTC GAAAAACCCTGAAGGTGATGGCCTCCTTGAGTACAGCACCTTCAACTTCTGGAGAGGCTCCCATTGCCAGCATCCA AGCCCCTTCCTTTCCACTCCTTTCCCATTTTAATCTTGTTCTCCCCTACTGTTTTGTTGGTGGTGCTGATGAATCTG ${\tt CCAGAGTTGAGTTCTATGTATTTATCTATCTGTCTACTCCATTTCTCTCAAAAGCCCTCAAGTCACAAAGT}$ AAATGGTTCAAGCAATGGAGTACTGGGTCACAGGGATTCCTCCTTTCCCCCCCAAATATTAACTCCAGAAACTAG GCCTGACTGGGGACACCTGAGAGTAGTAGTAGTGCAAAATGGAAGACTGATTTTTGACTCTATTATAATCAGC TTCAGAGATTCCTTAAACCTTCCTAATTTCCTGCTCCAGGGCAGTAAACACAAATATTTCTTCAAGGGGTGATGA AAACCTCGGAAGTTTTAATTTGAGGTTATCTGCTACGAAACAGTATTTCTAAAAGGCTAAAGTGATAAGTCTCTT GCTTTTTTTGATCCTGCTCTTATATTCTTTTTTTCCTCAGAGAAATCAGGAGGGTAGTTAGAGGTATAAAACA GGAGGAAATATTATGGAAAATGAAAATAGGGAAAATAATTGAATCATTTTAGAAGTAGCTAATTTCTTTTCTCAA AAGAGTGTCCCTTCTCACACCTACTCACTTTACAACTTTGCTCCTAACTGTGGGTTGAAAACTCTAGCTAAAGA AAGTTATCAAATCTTAACATGCATTCCTACTATTATGATAGTTTTTAAGGTTTCAATTCAATCTTCTGAACGGCA TAAGTCCTATTTTAGCCTTACCTCCTGCATTTGCAATACGTAATACTGATCAGTGGGCACAGTTCTTCAGCTACA TTGAGACCCTGAAATGAACAATTATATTCTGACTCGACATCTTGTCCCCAATCCTTCCAAAAATATTGATGGTGA TTTGTGCTACCATTTACTCGTTTATTTAATAAAGACATTCAATCCC

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GGGGGCGGGCGACGCCGGACTCCGGAGCGCCCGCTTACGCAGTTCCTCCCGGGGTCGGAGGCCGATTCGCCGTG ACCTCTCCTCGACCAGGGGCACCTCTACTCGACCAGGGGCGACGGCGTACTTTGGGCTTCATC<u>ATC</u>GAGGACTAC CTGCAGGGTTGTCGAGCTCTCTGCAGGAGTCCCGACCTCTACATGTTGTGCTGGGAAATGAAGCCTGTGATTTG GACTCCACAGTGTCTGCTCTTGCCCTGGCTTTTTACCTAGCAAAGACAACTGAGGCTGAGGAAGTCTTTGTGCCA GTTTTAAATATAAAACGTTCTGAACTACCTCTGCGAGGTGACATTGTCTTCTTCTTCAGAAGGTTCATATTCCA GAGAGTATCTTGATTTTTCGGGATGAGATTGACCTCCATGCATTATACCAGGCTGGCCAACTCACCCTCATCCTT GTCGACCATCATATCTTATCCAAAAGTGACACAGCCCTAGAGGAGGCAGTAGCAGAGGTGCTAGACCATCGACCC ATCGAGCCGAAACACTGCCCTCCCTGCCATGTTTCAGTTGAGCTGGTGGGGTCCTGTGCTACCCTGGTGACCGAG AGAATCCTGCAGGGGCACCAGAGATCTTGGACAGGCAAACTGCAGCCCTTCTGCATGGAACCATCATCCTGGAC TGTGTCAACATGGACCTTAAAATTGGAAAGGCAACCCCAAAGGACAGCAAATATGTGGAGAAACTAGAGGCCCTT TTCCCAGACCTACCCAAGAGAAATGATATTTGATTCCCTACAAAAGGCAAAGTTTGATGTATCAGGACTGACC ACTGAGCAGATGCTGAGAAAAGACCAGAAGACTATCTATAGACAAGGCGTCAAGGTGGCCATTAGTGCAATATAT ATGGATTTGGAGGCCTTTCTGCAGAGGTCTAACCTCCTTGCAGATCTCCATGCTTTCTGCCAGGCTCACAGCTAT GATGTCCTGGTTGCCATGACTATCTTTTTCAACACTCACAATGAGCCAGTGCGGCAGTTGGCTATTTTCTGTCCC CATGTGGCACTCCAAACAACGATCTGTGAAGTCCTGGAACGCTCCCACTCTCCACCCCTGAAGCTGACCCCTGCC CTCCAGGAAGCCCTGTCAGCATATTTTGACTCCATGAAGATCCCTTCAGGACAGCCTGAGACAGCAGATGTGTCC AGGGAGCAAGTGGACAAGGAATTGGACAGGGCAAGTAACTCCCTGATTTCTGGCCTGAGTCAAGATGAGGAGGAC CCTCCGCTGCCCCGACGCCCATGAACAGCTTGGTGGATGAGTGCCCTCTAGATCAGGGGCTGCCTAAACTCTCT GCTGAGGCCGTCTTCGAGAAGTGCAGTCAGATCTCACTGTCACAGTCTACCACAGCCTCCCTGTCCAAGAAGTGA

GAAAGCAGCTGCTTTAAGAATGGTTTTCCACCTTTTCCCCCTAATCTCTACCAATCAGACACATTTTATTATTTA AATCTGCACCTCTCTATTTTATTTGCCAGGGGCACGATGTGACATATCTGCAGTCCCAGCACAGTGGGACAAA AAGAATTTAGACCCCAAAAGTGTCCTCGGCATGGATCTTGAACAGAACCAGTATCTGTCATGGAACTGAACATTC GAAAAGAGAGTGCGCTTTGGAAATTTATTCCAGTTTTCAGCCTACAGCAGATTATCAGCTCGGTGACTTTTCTTT CTGCCACCATTTAGGTGATGGTTTTGATTCAGAGATGGCTGAATTTCTATTCTTAGCTTATTGTGACTGTTTCA GATCTAGTTTGGGAACAGATTAGAGGCCATTGTCTTCTGTCCTGATCAGGTGGCCTGGCTGTTTCTTTGGATCCC TCTGTCCCAGAGCCACCCAGAACCCTGACTCTTGAGAATCAAGAAAACACCCAGAAAGGCCTTAATGACCTCATA TTCTTGTCAATCTCTTTTTTTCCTTGCTCACATTAAAAGGAAGCATGGAGTTCTAATGCTCCCATAAACTATGTA TTTTGGCAAGACACTTCACTACTCCAGGTCTCACTTTCCCCATCTGTAAAACAGGGTTTGGACTAGGTGTTCCCT GGTATTCTGTGATCTGCCTCTTGCTGCCATTCTTTCTCTCCTCTGCTTCTCTGTATTTTŢCTTCTGTTATCCCTG GGGGTGCTCACGTTCACTTGATTGTCTGTATTTCTGTGTGGTTGTAGCAAGGACTCAGCCTCATGTAGCACGAAT CCCATTTTTTTTAACGCAACCCTTTCCCCTTTTTCCTACCCCACAGCTCTGTTCCATGTAAGTTGCCAACAGTTT CACTGAACAGTGGGGTATGTGATGGTTTTGGCATGACATCTTCAGTATGAGGGGGACAGTTTGACTTCACTTTGA GGGTGTGATGTCTGTAGCTATGTGGAAGGTAAAAATAGTGGTGTGATCATGAACCAAAGGAATTTATGTTTTGTA ACTTGGGTACTTTATTTTGCATTTTGTTATACTATTAAATAATTTTTTCCTGTT

MEDYLQGCRAALQESRPLHVVLGNEACDLDSTVSALALAFYLAKTTEAEEVFVPVLNIKRSELPLRGDIVFFLQK
VHIPESILIFRDEIDLHALYQAGQLTLILVDHHILSKSDTALEEAVAEVLDHRPIEPKHCPPCHVSVELVGSCAT
LVTERILQGAPEILDRQTAALLHGTIILDCVNMDLKIGKATPKDSKYVEKLEALFPDLPKRNDIFDSLQKAKFDV
SGLTTEQMLRKDQKTIYRQGVKVAISAIYMDLEAFLQRSNLLADLHAFCQAHSYDVLVAMTIFFNTHNEPVRQLA
IFCPHVALQTTICEVLERSHSPPLKLTPASSTHPNLHAYLQGNTQVSRKKLLPLLQEALSAYFDSMKIPSGQPET
ADVSREQVDKELDRASNSLISGLSQDEEDPPLPPTPMNSLVDECPLDQGLPKLSAEAVFEKCSQISLSQSTTASL
SKK

GAAACAAGCACTGGATTCCATATCCCACTGCCAAAACCGCATGGTTCAGATTATCGCTATTGCAGCTTTCATCAT ${\tt AATACACCTTTGCTGCCGAAACGAAGCCAGACAACAGATTTCCATCAGCAGGA\underline{\textbf{ATG}}\textbf{TGGGGGGCTCAAGGTTCTG}$ CACAGGAAGCAATATAACAACAAGGTGGATGAAATCTCTCGGCGTTTAATTTGGGAAAAAAACCTGAAGTATATT AGTGAAGAGGTGGTTCAGAAGATGACTGGACTCAAAGTACCCCTGTCTCATTCCCGCAGTAATGACACCCTTTAT ${\tt CAGGGTCAGTGTGGTTCCTGTTGGGCTTTTAGCTCTGTGGGTGCCCTGGAGGGCCAACTCAAGAAGAAAACTGGC}$ AAACTCTTAAATCTGAGTCCCCAGAACCTAGTGGATTGTGTGTCTGAGAATGATGGCTGTGGAGGGGGCCTACATG ACCAATGCCTTCCAATATGTGCAGAAGAACCGGGGTATTGACTCTGAAGATGCCTACCCATATGTGGGACAGGAA GAGAGTTGTATGTACAACCCAACAGGCAAGGCAGCTAAATGCAGAGGGTACAGAGAGATCCCCGAGGGGAATGAG AAAGCCCTGAAGAGGGCAGTGGCCCGAGTGGGACCTGTCTCTGTGGCCATTGATGCAAGCCTGACCTCCTTCCAG TTTTACAGCAAAGGTGTGTATTATGATGAAAGCTGCAATAGCGATAATCTGAACCATGCGGTTTTGGCAGTGGGA TATGGAATCCAGAAGGGAAACAAGCACTGGATAATTAAAAACAGCTGGGGAAAAAACTGGGGAAACAAAGGATAT ${\tt CCAGCCAAATCCATCCTGCTCTTCCATTTCTTCCACGATGGTGCAGTGTAACGATGCACTTTGGAAGGGAGTTGG}$ TGTGCTATTTTTGAAGCAGATGTGGTGATACTGAGATTGTCTGTTCAGTTTCCCCATTTGTTTTGTGCTTCAAATG ${\tt ATCCTTCCTACTTTGCTTCTCCCACCCATGACCTTTTTCACTGTGGCCATCAGGACTTTCCCTGACAGCTGTGT}$ ACTCTTAGGCTAAGAGATGTGACTACAGCCTGCCCTGACTGTTGTCCCAGGGCTGATGCTGTACAGGTACAG GCTGGAGATTTTCACATAGGTTAGATTCTCATTCACGGGACTAGTTAGCTTTAAGCACCCTAGAGGACTAGGGTA ATCTGACTTCTCACTTCCTAAGTTCCCTTCTATATCCTCAAGGTAGAAATGTCTATGTTTTCTACTCCAATTCAT AAATCTATTCATAAGTCTTTGGTACAAGTTTACATGATAAAAAAGAAATGTGATTTGTCTTCCCTTCTTTGCACTT TTGAAATAAAGTATTTATC

MWGLKVLLLPVVSFALYPEEILDTHWELWKKTHRKQYNNKVDEISRRLIWEKNLKYISIHNLEASLGVHTYELAM NHLGDMTSEEVVQKMTGLKVPLSHSRSNDTLYIPEWEGRAPDSVDYRKKGYVTPVKNQGQCGSCWAFSSVGALEG QLKKKTGKLLNLSPQNLVDCVSENDGCGGGYMTNAFQYVQKNRGIDSEDAYPYVGQEESCMYNPTGKAAKCRGYR EIPEGNEKALKRAVARVGPVSVAIDASLTSFQFYSKGVYYDESCNSDNLNHAVLAVGYGIQKGNKHWIIKNSWGE NWGNKGYILMARNKNNACGIANLASFPKM

 ${\tt GGCACGAGGAAGGAAC} {\color{red} {\bf ATG}} {\tt GCCCTGTATCAGAGGTGGCGGTGTCTCCGGCTCCAAGGTTTACAGGCTTGCAGGCT}$ ACACACGGCAGTTGTCGACCCCTCCACGCTGGTTGGCAGAGCGGCTTGGCCTTTTTGAGGAGCTGTGGGCTGC TCAGGTAAAGAGATTAGCAAGCATGGCACAGAAGGAACCCCGGACTATTAAGATATCACTTCCTGGAGGCCAGAA AATTGATGCTGTGGCATGGAACACAACCCCCTACCAACTAGCCCGGCAGATCAGTTCAACACTGGCAGATACTGC AGTGGCTGCTCAAGTGAATGGAGAACCTTATGATCTGGAGCGGCCCTTGGAGACAGATTCTGACCTCAGATTTCT GACATTCGATTCCCCAGAGGGGAAAGCAGTGTTCTGGCACTCCAGCACCCATGTCCTGGGGGCAGCAGCTGAACA ATTCCTAGGTGCTGTTCTCTGCAGAGGTCCAAGTACAGAATATGGCTTTTACCATGATTTCTTCCTGGGAAAGGA GAGGACAATCCGGGGCTCAGAGCTGCCTGTTTTGGAGCGGATTTGCCAGGAACTTACAGCTGCTGCTCGACCCTT GGAGAAAGTGACAGGTCCAACAGCAACAGTATATGGGTGTGGCACATTGGTTGACCTTTGCCAGGGCCCCCACCT TCGGCATACTGGACAGATTGGAGGACTGAAGCTGCTATCGAACTCATCATCCTTATGGAGGTCTTCAGGGGCCCC AGAGACACTGCAGAGAGTGTCAGGGATTTCCTTCCCCACAACAGAATTGCTGAGGGTCTGGGGAAGCATGGAGGGA GAGCTGCTTCTTCCTGCCACGAGGGACAAGGGTGTATAATGCACTAGTGGCGTTTATCAGGGCTGAGTATGCCCA TCGTGGTTTCTCCGAGGTGAAAACTCCCACACTGTTTTCTACGAAGCTCTGGGAACAGTCAGGGCACTGGGAGCA TTATCAGGAAGACATGTTTGCCGTGCAGCCCCCAGGCTCTGACAGGCCTCCCAGCTCCCAGAGTGACGATTCTAC CAGGCATATCACAGATACACTCGCCCTCAAGCCTATGAACTGCCCTGCACACTGCCTGATGTTCGCCCACCGGCC CAGATCCTGGCGGGAACTGCCCCTGCGACTAGCTGACTTTGGGGCTCTACACCGGGCCGAAGCCTCTGGTGGTCT GGGGGGACTGACCCGACTGCGGTGCTTCCAGCAGGATGACGCTCACATCTTCTGTACAACAGATCAGCTGGAAGC AGAGATCCAAAGCTGTCTTGATTTCCTCCGTTCCGTCTATGCCGTTCTTGGCTTCTCCTTCCGCCTGGCACTGTC CACCCGGCCATCTGGCTTCCTGGGGGACCCTTGCCTTTGGGACCAGGCCGAACAGGTCCTTAAACAGGCCCTGAA GGAATTTGGAGAACCCTGGGACCTCAACTCTGGAGATGGTGCCTTCTATGGACCTAAGATTGACGTGCACCTCCA CGATGCCCTGGGCCGGCCACATCAGTGTGGGACAATTCAGCTTGACTTCCAACTGCCCCTGAGATTTGACCTCCA GTATAAGGGGCAGGCGGGTGCCCTGGAGCGTCCAGTCCTCATTCACCGAGCAGTGCTCGGTTCTGTGGAAAGACT GTTGGGAGTGCTGGCAGAAAGCTGCGGGGGGAAATGGCCACTGTGGCTGTCCCCGTTCCAGGTGGTGATCCC TGTGGGGAGTGAGCAAGAGGAATACGCCAAAGAGGCACAGCAGAGCCTGCGGGCTGCAGGACTGGTCAGTGACCT GGATGCAGACTCTGGACTGACCCTCAGCCGGAGAATCCGCCGGGCCCAGCTTGCCCACTACAATTTTCAGTTTGT GGTTGGCCAGAAAGAGCAAAGTAAGAAACAGTGAACATTCGGACTCGAGATAATCGTCGCCTTGGGGAGTGGGA $\tt CTTGCCTGAGGCTGTGCAGCGACTGGTGGAGCTACAGAACACGAGGGTCCCAAATGCCGAAGAAATTTTC\underline{\textbf{TGA}}\textbf{GC}$ AATGTGGAGCCCCCAGAACTTCAGAACTGTGTGGAGGCACATGTCTGCTCTCCTGAAAAGAGACTTGGTTTGGGG

MALYQRWRCLRLQGLQACRLHTAVVSTPPRWLAERLGLFEELWAAQVKRLASMAQKEPRTIKISLPGGQKIDAVA
WNTTPYQLARQISSTLADTAVAAQVNGEPYDLERPLETDSDLRFLTFDSPEGKAVFWHSSTHVLGAAAEQFLGAV
LCRGPSTEYGFYHDFFLGKERTIRGSELPVLERICQELTAAARPFRRLEASRDQLRQLFKDNPFKLHLIEEKVTG
PTATVYGCGTLVDLCQGPHLRHTGQIGGLKLLSNSSSLWRSSGAPETLQRVSGISFPTTELLRVWEAWREEAELR
DHRRIGKEQELFFFHELSPGSCFFLPRGTRVYNALVAFIRAEYAHRGFSEVKTPTLFSTKLWEQSGHWEHYQEDM
FAVQPPGSDRPPSSQSDDSTRHITDTLALKPMNCPAHCLMFAHRPRSWRELPLRLADFGALHRAEASGGLGGLTR
LRCFQQDDAHIFCTTDQLEAEIQSCLDFLRSVYAVLGFSFRLALSTRPSGFLGDPCLWDQAEQVLKQALKEFGEP
WDLNSGDGAFYGPKIDVHLHDALGRPHQCGTIQLDFQLPLRFDLQYKGQAGALERPVLIHRAVLGSVERLLGVLA
ESCGGKWPLWLSPFQVVVIPVGSEQEEYAKEAQQSLRAAGLVSDLDADSGLTLSRRIRRAQLAHYNFQFVVGQKE
QSKRTVNIRTRDNRRLGEWDLPEAVQRLVELQNTRVPNAEEIF

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MSSQQQKQPCTPPPQLQQQQVKQPCQPPPQEPCIPKTKEPCHPKVPEPCHPKVPEPCQPKVPEPCHPKVPEPCPS IVTPAPAQQKTKQK

ATGGTTCCCAGGGAGAGAGCTGCTCTTTCTTCCGAAGCTCTGGGAGCTGGCACAGCTGAGGACTTCCTTTTC TTAGCTCCACCTGGACAGTGGCAGTATGGCAGCCTCAGAAAGGGAATCTTTTGCTGTCACAGATCATCACAGGCA GGCCACAGGTTAAGGAGAAAGAAGCTCCCTGTGCATCCATGGAAAGGCTTTGGTGAGAAGATGCAAGTGGAGCTGT GGAACGAGGGAGAGCTGCTGCTCTTTCTTCCGAAGCTCTGGGAGCTGGCACAGCCCAGGACTTCCTTTGCTCA GTCTCCACCTGGACAGTGGCAGTATGGCAGCCTCAGAAAAGAAACTTTTTGCTGTCAGGGATCATCATGGGCAGA TTACTGGCTAAGGAGAAGAAGCTCCCTGTGTATCCATGGTAGGCTTTGATGAGAAGATGAAGGTGGAGCTGTGG AACGAGATACTTTATTCAGGGAGTGAAAGAAAAGTGACAATTGCACAGGTGGTAGAAGCTCATGCCCAGGTGAAA GACAGACACAGAACACATCAACAGAATTCTCTGATGGTTCCCAGGCACACAGCTGCAGCTCTTTCTGCTGAAGCT CTGGGAACTGACAAAGCCAAGGTTCCTTTGCTCAGTCTCCACCTGGACAGTGGCATCTCCACCTGGACAGTGGCA ATATGGCAGCCTCAGAAAGGAAACCTTTTGCTATCAGGGATCATCATGGGCAGATCACTGGCTAAGAGGAAAGAA GCTAACTGTGTATCCATGGTAGGCTTTGATGAGAAGATGCAGGTGAAGCTGTGGAACAAGTGCAGGCACCAGAGC AGCAGCAGCCCTAGTGCCCCCAGCATCTCAGACAGGCTCACTTTACAAGTTGAGGTGATGAACTTGAAGCTAAGA GTTCCTCACAGTCCAGGGAGTGAAAGGAAAGTGACAACTGCACAGGTGGTGGAAGCTCATGCCCAGGGGACAGAC GCTGGCACAGCCCAGGACTTCCTTTGCTCAGTCTCCACCTGGACAGTGGCAGTATGGCAGCCTCAAAAAAGAAAAC CTTTTGCTATCAGAGATCATCACAGGCCGATCACAGGCTAAGAGGAAAGAAGCTCCCTGTGTATCCCTGGATGGC TTTGATGAGAAGATGCAGGTGGAGCTGTGGAACGAGCATCAAATCAACATTCATAGGATTGGATCAACCAAACTT GCTGTATTCAGATTAAATTCAACATTTCAGGGCACAAAGAACAGAGGAACTCCAGGAAGCCGACTCACCAGGTTC TCCAAGGCAGATCGGTGCTTAGGAGACTATAATCCGTGTGGACAGCCACCTAGAAGCAAACTTCTGGCCATGGTA GCACAGACTGTGTCATCATTCCAGGTTCTGTGGCCAAGCCCCCCAAACAGGAATCACGTAGTGAAGTTCAAAGAA ACTTCCAAAAGGTGCAGCAAAAGAAAGAAAAGAAAAACATAA

 ${\tt MTCKMSQLERNIETIINTFHQYSVKLGHPDTLNQGEFKELVRKDLQNFLKKENKNEKVIEHIMEDLDTNADKQLS} \\ {\tt FEEFIMLMARLTWASHEKMHEGDEGPGHHHKPGLGEGTP}$

 ${\tt AAATAAATAGGGAAGATGGAGACACCTCTGGGGGTCCTCTGGGGTCAAATCCAGTGGTGGGTAATTGTACAATA} \\ {\tt AATTTTTTTTGGTCAAATTT}$

 ${\tt MACPLDQAIGLLVAIFHKYSGREGDKHTLSKKELKELIQKELTIGSKLQDAEIARLMEDLDRNKDQEVNFQEYVT} \\ {\tt FLGALALIYNEALKG}$

 ${\tt MACPLEKALDVMVSTFHKYSGKEGDKFKLNKSELKELLTRELPSFLGKRTDEAAFQKLMSNLDSNRDNEVDFQEY} \\ {\tt CVFLSCIAMMCNEFFEGFPDKQPRKK}$

401/6881 FIGURE 371

 ${\tt MACPLEKALDVMVSTFHKYSGKEGDKFKLNKSELKELLTRELPSFLGKRTDEAAFQKLMSNLDSNRDNEVDFQEY}\\ {\tt CVFLSCIAMMCNEFFEGFPDKQPRKK}$

GGCAGAGAGAGAGTGCCTCTGGCTTCAGGAGTCCCGAGTCTAAGGAGGGAAACGACTCCTTCAGGGAGCTTCCTGC TCCTAGGCTGTAGCCATGGCTCCTGCCAGACTGCACAGGAGCCCCCATCTGCCAGCCGGTGCATGTGGCCCTGCT CCCCAGAGCCTGCGCAGATGCCATCAAAATGGGACTCTGGTCACCCTGTCATTTCCCTTCTGGCAGACACTAAAA TGGGGAGCCCTGCCCTCAGGGGGGTGTCCCAAGTGCCATCAGAGGAGGCTTGGTGACTCCCAGACACAAGGGAAG CTTTAGCGTCTGCCCTCAGGGTGAGATGGAGGTATCGCCTCCGGCCTCAGGGAACCACAGTCTGAGGGGGAGATG CAGCCCTGCCTTCCCATTCAGAGAGGGGTTTTGTGAGGTGGCTTGGGGGCATAGGGCAGAAGTGGATCCTACAG GCTGAGCTAAGGCCCCAAGAGCCTCAGCAGTGTACCCATCACCTGGCACCTCTGCAGCCACAGATCCATGATGTG CAGTTCTCTGGAGCAGGCGCTGGCTGGTCACTACCTTCCACAAGTACTCCTGCCAAGAGGGCGACAAGTT CAAGCTGAGTAAGGGGGAAATGAAGGAACTTCTGCACAAGGAGCTGCCCAGCTTTGTGGGGGAGAAAGTGGATGA GGAGGGGCTGAAGAAGCTGATGGGCAGCCTGGATGAGAACAGTGACCAGCAGGTGGACTTCCAGGAGTATGCTGT TGACTTCCTGCCATGGATCTCTTGGGCCCAGGACTGTTGATGCCTTTGAGTTTTGTATTCAATAAACTTTTTTTG GCCTCCTGGATCCTGCTCCCTTCTGGGCTCTGACTCTCCTGGAAATCTCTCCAAGGCCAGAGCTATGCTTTAGGT CTCAATTTTGGAATTTCAAACACCAGCAAAAAATTGGAAATCGAGATAGGTTGCTGACTTTTATTTTGTCAAATA AAGATATTAAAAAAGGC

405/6881 FIGURE 375

 ${\tt MGSELETAMETLINVFHAHSGKEGDKYKLSKKELKELLQTELSGFLDAQKDVDAVDKVMKELDENGDGEVDFQEY}\\ {\tt VVLVAALTVACNNFFWENS}$

406/6881 FIGURE 376

TCAGACAAGCACTGGACGTGGCGGCCATTTTGTTTTGGACACCGAGCAGGAGCTGGCGGCCGCTGCAGACGAAAG GCAGGAAAGGCCAGCCGGTGAGCAGACGGATCGGCCGACTAGACAGCCAACCAGCAACAACGAACTGAGCTCG CATACTACCGCTTACGCATCTAACCAACCGCCCATCTAGCTAACCCGAGCCCCTCCACCGTCAACTCAGGTTCGG CCGGTCCCCGGCCCGCCCGGAGCCGTGGTGGCAGCCCCGGGAGGAGCACTGGCGTCTGTTTCCTTCGATTCT CGGGATTCGAAGATGGCTGCACAGTCAGCGCCGAAAGTTGTGCTAAAAAGCACCACCAAGATGTCTCTAAATGAG CGCTTTACTAATATGCTGAAGAACAAACAGCCGACGCCAGTGAATATTCGGGCTTCGATGCAGCAACAACAGCAG CTAGCCAGTGCCAGAAACAGAAGACTGGCCCAGCAGATGGAGAATAGACCCTCTGTCCAGGCAGCATTAAAACTT AAGCAGAGCTTAAAGCAGCGCCTGGGTAAGAGTAACATCCAGGCACGGTTAGGCCGACCCATAGGGGCCCTGGCC AGGGGAGCAATCGGAGGACGAGGCCTACCCATAATCCAGAGGAGGCTTGCCCAGAGGAGGACTACGTGGGGGACGT GCCACCAGAACCCTACTTAGGGGCGGGATGTCACTCCGAGGTCAAAACCTGCTCCGAGGTGGACGAGCCGTAGCT CCCCGAATGGGCTTAAGAAGAGGTGGTGTTCGAGGTCGTGGAGGTCCTGGGAGAGGGGGGCCTAGGGCGTGGAGCT ATGGGTCGTGGCGGAATCGGTGGTAGAGGTCGGGGTATGATAGGTCGGGGAAGAGGGGGCTTTGGAGGCCGAGGC $\tt CGAGGCCGTGGACGAGGGGGGGGGGCCCTTGCTCGCCCTGTATTGACCAAGGAGCAGCTGGACAACCAATTGGAT$ ${\tt AATGATTGAAGCCTGCCCATCCTCCCATGAGAGACTCTTGTTAGTCAACACATCTGTAAATAACCTTGAGATAAC}$ ${\tt CATTTAGTGTTCCTTTTACTTTTTGATACTGTGTTGTATGAAACCCTTTTGTCCTTTGATTTTGTT}$ $\tt TTTGTTTTTTTAGGGGGGGGGGGTTTCCCCTCCTTTGCCCAGACTTCTCTTTGAACACAAATGCATTAGCCT$ TGTGGCTAGAACACCCTCTTCCTACCTCTGTCTCCCCTCACTTGTCATATGCTCTGACATGCTAACATTTCTTTT $\tt CTGAAATAGGGTTCTGTTACATCCTCTTCGATAGCCTGTTTAAAATGTTTAGAAGGTCTGGAGCTCAAAAATGCG$ TTCTTCC

AGGGGTGACAGAGGCCGTGGTCGTGGTGGCCCTTTGGTTCCAGAGGAGGCCCCAGGAGGAGGGTTCAGGCCCTTT GTACCACATATCCCATTTGACTTCTATTTGTTTACTTCTGGTTTAGTGTGAAATGGCCTTTCCCCGGGTCAA GCCAGCACCTGATGAAACTTCCTTCAGTGAGGCCTTGCTGAAGAGGGAATCAGGACCTGGCTCCCAATTCTGCTGA TGAAGTGCAAATTGAAGAAGTTCGACAGGTGGGATCCTATAAAAAGGGGACAATGACTACAGGACACAATGTGGC TGACCTGGTGGTGATACTCAAGATTCTGCCAACGTTGGAAGCTGTTGCTGCCCTGGGGAACAAAGTCGTGGAAAG CCTAAGAGCACAGGATCCTTCTGAAGTTTTAACCATGCTGACCAACGAAACTGGCTTTGAAATCAGTTCTTCTGA TGCTACAGTGAAGATTCTCATTACAACAGTGCCACCCAATCTTCGAAAACTGGATCCAGAACTCCATTTGGATAT ${\tt CAAAGTATTGCAGAGTGCCTTAGCAGCCATCCGACATGCCCGCTGGTTCGAGGAAAATGCTTCTCAGTCCACAGT}$ TAAAGTTCTCATCAGACTACTGAAGGACTTGAGGATTCGTTTTCCTGGCTTTGAGCCCCTCACACCCTGGATCCT TGACCTACTAGGCCATTATGCTGTGATGAACAACCCCACCAGACAGCCTTTGGCCCTAAACGTTGCATACAGGCG CTGCTTGCAGATTCTGGCTGCAGGACTGTTCCTGCCAGGTTCAGTGGGTATCACTGACCCCTGTGAGAGTGGCAA $\verb|CTTTAGAGTACACAGTCATGACCCTAGAACAGCAGGACATGGTCTGCTATACAGCTCAGACTCTCGTCCGAAT| \\$ CCTCTCACATGGTGGCTTTAGGAAGATCCTTGGCCAGGAGGGTGATGCCAGCTATCTTGCTTCTGAAATATCTAC AGAGGAGATACAGAAGAACCACCTCAAGGAGAGAAGAAGAAGCATGGAAACTCAGGAGTGACATTCCCTTCA CCGTGGGATAGGGAAGATAGCAGGAAGAAAGTAAACTCCATAGAAGTGTCATTCCACTGGGTTTTGATATTGGC CTATAATCTCCAACTCCTGAAAACCCCTCTCTCAACTAATACTTTGCTGTTGAAATGTTGTGAAATGTTAAGTGT CTGGAAATTTTTTTTTCTAAGAAAAACTATTAAAGTACTT

MRGDRGRGRGGRFGSRGGPGGGFRPFVPHIPFDFYLCEMAFPRVKPAPDETSFSEALLKRNQDLAPNSAEQASIL SLVTKINNVIDNLIVAPGTFEVQIEEVRQVGSYKKGTMTTGHNVADLVVILKILPTLEAVAALGNKVVESLRAQD PSEVLTMLTNETGFEISSSDATVKILITTVPPNLRKLDPELHLDIKVLQSALAAIRHARWFEENASQSTVKVLIR LLKDLRIRFPGFEPLTPWILDLLGHYAVMNNPTRQPLALNVAYRRCLQILAAGLFLPGSVGITDPCESGNFRVHT VMTLEQQDMVCYTAQTLVRILSHGGFRKILGQEGDASYLASEISTWDGVIVTPSEKAYEKPPEKKEGEEEEENTE EPPQGEEEESMETQE

GCCAGCGCACGCGCGCTCCCTGGAAGGAGAAGTCTCAGCTAGAACGAGCGGCCCTAGGTTTTCGGAAGGGAGGAT CAGGGATGTTTGCGAGCGGCTGGAACCAGACGGTGCCGATAGAGGAAGCGGGCTCCATGGCTGCCCTCCTGCTGC TGCCCCTGCTGCTGTTGCTACCGCTGCTGCTGAAGCTACACCTCTGGCCGCAGTTGCGCTGGCTTCCGGCGG ACTTGGCCTTTGCGGTGCGAGCTCTGTGCTGCAAAAGGGCTCTTCGAGCTCGCCGCCCTGGCCGCGGCTGCCGCCG GGGCAGCGCGGGAGCCGGAGATGCAGCGGCCGGAAGCGGCGGGGGTTTGCCGGAGGGGACGGTGCCGCCAGAG GTGGAGGAGCCGCCCCCTCTGTCACCTGGAGCAACTGTGGCGCTGCTCCTCCCCGCTGGCCCAGAGTTTCTGT TGCTGGCTGAAGTGTCCGCTGAAGTGGATGGGCCAGTGCCAGGATACCTCTCTCCCCCCAGAGCATAACAGACA $\tt CGTGCCTGTACATCTTCACCTCTGGCACCACGGGCCTCCCCAAGGCTGCTCGGATCAGTCATCTGAAGATCCTGC$ AATGCCAGGGCTTCTATCAGCTGTGTGTGTGTCCACCAGGAAGATGTGATCTACCTCGCCCTCCCACTCTACCACA TGTCCGGTTCCCTGCGGCATCGTGGGCTGCATGGGCCATTGGGGCCACAGTGGTGCTGAAATCCAAGTTCTCGG CTGGTCAGTTCTGGGAAGATTGCCAGCAGCACAGGGTGACGGTGTTCCAGTACATTGGGGAAGCTGTGCCGATACC TTGTCAACCAGCCCCGAGCAAGGCAGAACGTGGCCATAAGGTCCGGCTGGCAGTGGGCAGCGGGCTGCGCCCAG ATACCTGGGAGCGTTTTGTGCGGCGCTTCGGGCCCCTGCAGGTGCTGGAGACATATGGACTGACAGAGGGCAACG TGGCCACCATCAACTACACAGGACAGCGGGGCGCTGTGGGGGCGTGCTTCCTGGCTTTACAAGCATATCTTCCCCT TCTCCTTGATTCGCTATGATGTCACCACAGGAGAGCCAATTCGGGACCCCCAGGGGCACTGTATGGCCACATCTC ${\tt CAGGTGAGCCAGGGCTGCTGGTGGCCCCGGTAAGCCAGCAGTCCCCATTCCTGGGCTATGCTGGCGGGCCAGAGC}$ TGGCCCAGGGGAAGTTGCTAAAGGATGTCTTCCGGCCTGGGGATGTTTTCTTCAACACTGGGGACCTGCTGGTCT GCGATGACCAAGGTTTTCTCCGCTTCCATGATCGTACTGGAGACACCTTCAGGTGGAAGGGGGAGAATGTGGCCA CAACCGAGGTGGCAGAGGTCTTCGAGGCCCTAGATTTTCTTCAGGAGGTGAACGTCTATGGAGTCACTGTGCCAG GGCATGAAGGCAGGGCTGGAATGGCAGCCCTAGTTCTGCGTCCCCCCCACGCTTTGGACCTTATGCAGCTCTACA CCCACGTGTCTGAGAACTTGCCACCTTATGCCCGGCCCCGATTCCTCAGGCTCCAGGAGTCTTTGGCCACCACAG TTCTGGACCAGGCTGTAGGTGCCTACCTGCCCCTCACAACTGCCCGGTACAGCGCCCTCCTGGCAGGAAACCTTC GAATC<u>TGA</u>GAACTTCCACACCTGAGGCACCTGAGAGAGGAACTCTGTGGGGTGGGGGCCGTTGCAGGTGTACTGG GCTGTCAGGGATCTTTTCTATACCAGAACTGCGGTCACTATTTTGTAATAAATGTGGCTGGAGCTGATCCAGCTG TCTCTGACCTACAAAAAAAAAAAAAAAAAA

#11/6881 FIGURE 381

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 ${\tt MAGAGSAAVSGAGTPVAGPTGRDLFAEGLLEFLRPAVQQLDSHVHAVRESQVELREQIDNLATELCRINEDQKVALLDLDPYVKKLLNARRRVVLVNNILQNAQERLRRLNHSVAKETARRRAMLDSGIYPPGSPGK}$

CTATGATAAGCTAATTATTTATGTTTGCATAATATTTATGTTTGCATGTTAGTGACATATATTTTAAAATGTGAT CTTAGAATGCACCTCGGATCCCCCAAGGTTTAGGCTTTCTTCATTTGTCTTTGAAACTATATCTTCTGTCTCTTG TCATATCTGCTTATTGCGTGTTTTTCATACCTTCCACCTCTCTAAAAGCCGTTACCTGAGCCCTCGTTATCACTT TTGGTTGAATGTGCTGCACTTAGCTGCATTTCTAAGTTTCTGATTCTTGCAAGTTTGTGGAAACAGAGGAGTCTT TAACCCACATCAGCCTTGATCTAAGTGTACCACTTTACTTAAAAGTTCGTGGGATCTGGAGCTCCTGGTCTAGCA ACTAATATGCTGAAGAACAAACAGCCGACGCCAGTGAATATTCGGGCTTCGATGCAGCAACAACAGCAGCTAGCC AGTGCCAGAAACAGAAGACTGGCCCAGCAGATGGAGAATAGACCCTCTGTCCAGGCAGCATTAAAACTTAAGCAG AGCTTAAAGCAGCGCCTGGGTAAGAGTAACATCCAGGCACGGTTAGGCCGACCCATAGGGGCCCTGGCCAGGGGA GCAATCGGAGGACGAGGCCTACCCATAATCCAGAGAGGCTTGCCCAGAGGAGGACTACGTGGGGGACGTGCCACC AGAACCCTACTTAGGGGCGGGATGTCACTCCGAGGTCAAAACCTGCTCCGAGGTGGACGAGCCGTAGCTCCCCGA ATGGGCTTAAGAAGAGGTGGTGTTCGAGGTCGTGGAGGTCCTGGGAGAGGGGGCCTAGGGCGTGGAGCTATGGGT CGTGGACGAGGGAGAGGTGCCCTTGCTCGCCCTGTATTGACCAAGGAGCAGCTGGACAACCAATTGGATGCATAT TGAAGCCTGCCCATCCCCCATGAGAGACTCTTGTTAGTCAACACATCTGTAAATAACCTTGAGATAACAGATGA TTTTTAGGGGGGGGGGGGTTTCCCCTCCTTTGCCCAGACTTCTCTTTGAACACAAATGCATTAGCCTTGTGGC TAGAACACCCTCTTCCTACCTCTGTCTCCCCTCACTTGTCATATGCTCTGACATGCTAACATTTCTTTTGTTCAT TAGGGTTCTGTTACATCCTCTTCGATAGCCTGTTTAAAATGTTTAGAAGGTCTGGAGCTCAAAAATGCGTTCTTC C

414/6881 FIGURE 384

 ${\tt MMCSSLEQALAVLVTTFHKYSCQEGDKFKLSKGEMKELLHKELPSFVGEKVDEEGLKKLMGSLDENSDQQVDFQE} \\ {\tt YAVFLALITVMCNDFFQGCPDRP}$

GCGCCCAGACTTGCTGCCGGGCTGGACGGTCCGCACGGTGCTGGGCAGCAGCGAAAACGCGCTGGGCGTGTGCTC CGACACCGCAGCGCCCCTGGCCGCGGTGGACCTCAAGTGGGAGCACAACCCCGCTGTGTTCCTGGGCCCCGGCTG CGTGTACGCCGCCCCAGTGGGGCGCTTCACCGCGCACTGGCGGGTCCCGCTGCTGACCGCCGGCGCCCCCGGC GCTGGGCTTCGGTGTCAAGGACGAGTATGCGCTGACCACCCGCGGGGGCCCAGCTACGCCAAGCTGGGGGACTT AGAGCACTGCTTCTTCCTCGTGGAGGGGCTGTTCATGCGGGTCCGCGACCGCCTCAATATTACGGTGGACCACCT GGAGTTCGCCGAGGACCTCAGCCACTACACCAGGCTGCTGCGGACCATGCCGCGCAAAGGCCGAGTTATCTA CATCTGCAGCTCCCCTGATGCCTTCAGAACCCTCATGCTCCTGGCCCTGGAAGCTGGCTTGTGTGGGGAGGACTA CGTTTTCTTCCACCTGGATATCTTTGGGCAAAGCCTGCAAGGTGGACAGGGCCCTGCTCCCCGCAGGCCCTGGGA GAGAGGGGATGGCAGGATGTCAGTGCCCGCCAGGCCTTTCAGGCTGCCAAAATCATTACATATAAAGACCCAGA TAATCCCGAGTACTTGGAATTCCTGAAGCAGTTAAAACACCTGGCCTATGAGCAGTTCAACTTCACCATGGAGGA TGGCCTGGTGAACACCATCCCAGCATCCTTCCACGACGGGCTCCTGCTCTATATCCAGGCAGTGACGGAGACTCT GGCACATGGGGGAACTGTTACTGATGGGGAGAACATCACTCAGCGGATGTGGAACCGAAGCTTTCAAGGTGTGAC AGGATACCTGAAAATTGATAGCAGTGGCGATCGGGAAACAGACTTCTCCCTCTGGGATATGGATCCCGAGAATGG TGCCTTCAGGGTTGTACTGAACTACAATGGGACTTCCCAAGAGCTGGTGGCTGTGTCGGGGGCGCAAACTGAACTG GCCCCTGGGGTACCCTCCTCCTGACATCCCCAAATGTGGCTTTGACAACGAAGACCCAGCATGCAACCAAGATCA CCTTTCCACCCTGGAGGTGCTGGCTTTGGTGGGCAGCCTCTCCTTGCTCGGCATTCTGATTGTCTCCTTCAT ATACAGGAAGATGCAGCTGGAGAAGGAACTGGCCTCGGAGCTGTGGCGGTGCGCTGGGAGGACGTTGAGCCCAG TAGCCTTGAGAGGCACCTGCGGAGTGCAGGCAGCCGGCTGACCCTGAGCGGGAGAGGCTCCAATTACGGCTCCCT GCTAACCACAGAGGGCCAGTTCCAAGTCTTTGCCAAGACAGCATATTATAAGGGCAACCTCGTGGCTGTAAAACG TGTGAACCGTAAACGCATTGAGCTGACACGAAAAGTCCTGTTTGAACTGAAGCATATGCGGGATGTGCAGAATGA ACACCTGACCAGGTTTGTGGGAGCCTGCACCGACCCCCAATATCTGCATCCTCACAGAGTACTGTCCCCGTGG GAGCCTGCAGGACATTCTGGAGAATGAGAGCATCACCCTGGACTGGATGTTCCGGTACTCACCCAATGACAT CGTCAAGGGCATGCTGTTTCTACACAATGGGGCTATCTGTTCCCATGGGAACCTCAAGTCATCCAACTGCGTGGT AGATGGGCGCTTTGTGCTCAAGATCACCGACTATGGGCTGGAGGCTTCAGGGACCTGGACCCAGAGCAAGGACA CACCGTTTATGCCAAAAAGCTGTGGACGGCCCCTGAGCTCCTGCGAATGGCTTCACCCCCTGTGCGGGGCTCCCA GGCTGGTGACGTATACAGCTTTGGGATCATCCTTCAGGAGATTGCCCTGAGGAGTGGGGTCTTCCACGTGGAAGG CCTGCAGAGTCACCTGGAGGAGTTGGGGCTGCTCATGCAGCGGTGCTGGGCTGAGGACCCACAGGAGAGGCCACC ATTCCAGCAGATCCGCCTGACGTTGCGCAAATTTAACAGGGAGAACAGCAGCAACATCCTGGACAACCTGCTGTC CCGCATGGAGCAGTACGCGAACAATCTGGAGGAACTGGTGGAGGAGCGGACCCAGGCATACCTGGAGGAGAAGCG GGCCGAAGCCTTTGACAGTGTTACCATCTACTTCAGTGACATTGTGGGTTTCACAGCGCTGTCGGCGGAGAGCAC ACCCATGCAGGTGGTGACCCTGCTCAATGACCTGTACACTTGCTTTGATGCTGTCATAGACAACTTTGATGTGTA CAAGGTGGAGACAATTGGCGATGCCTACATGGTGGTGTCAGGGCTCCCTGTGCGGAACGGGCGGCTACACGCCTG CGAGGTAGCCCGCATGGCCCTGGCACTGCTGGATGCTGTGCGCTCCTTCCGAATCCGCCACCGGCCCCAGGAGCA TCTCTTTGGGGATACAGTCAACACGCCTCAAGAATGGAGTCTAATGGGGAAGCCCTGÁAGATCCACTTGTCTTC TGAGACCAAGGCTGTCCTGGAGGAGTTTGGTGGTTTCGAGCTGGAGCTTCGAGGGGATGTAGAAATGAAGGGCAA CCCTCCACACCTCCCTACCCTGTGCCAGAAGCAACAGAGGTGCCAGGCCTCAGCCTCACCCACAGCAGCCCCATC GCCAAAGGATGGAAGTAATTTGAATAGCTCAGGTGTGCTGACCCCAGTGAAGACACCAGATAGGACCTCTGAGAG GGGACTGGCATGGGGGGATCTCAGAGCTTACAGGCTGAGCCCAAGCCCACGGCCATGCACAGGGACACTCACACAG GCACACGCACCTGCTCTCCACCTGGACTCAGGCCGGGCTGGGCTGTGGATTCCTGATCCCCTCCCCATGC TCTCCTCCCTCAGCCTTGCTACCCTGTGACTTACTGGGAGGAGAAAGAGTCACCTGAAGGGGAACATGAAAAGAG ACTAGGTGAAGAGAGGGCAGGGGAGCCCACATCTGGGGCCTGGCCCACAATACCTGCTCCCCCGACCCCCTCCACC CAGCAGTAGACACAGTGCACAGGGGAGAAGAGGGTTGGCGCAGAAGGGTTGGGGGCCTGTATGCCTTCTAC CATGAGCAGAGACAATTAAAATCTTTATTCCAGTG

MPGPRRPAGSRLRLLLLLLLPPLLLLRGSHAGNLTVAVVLPLANTSYPWSWARVGPAVELALAQVKARPDLLPG
WTVRTVLGSSENALGVCSDTAAPLAAVDLKWEHNPAVFLGPGCVYAAAPVGRFTAHWRVPLLTAGAPALGFGVKD
EYALTTRAGPSYAKLGDFVAALHRRLGWERQALMLYAYRPGDEEHCFFLVEGLFMRVRDRLNITVDHLEFAEDDL
SHYTRLLRTMPRKGRVIYICSSPDAFRTLMLLALEAGLCGEDYVFFHLDIFGQSLQGGQGPAPRRPWERGDGQDV
SARQAFQAAKIITYKDPDNPEYLEFLKQLKHLAYEQFNFTMEDGLVNTIPASFHDGLLLYIQAVTETLAHGGTVT
DGENITQRMWNRSFQGVTGYLKIDSSGDRETDFSLWDMDPENGAFRVVLNYNGTSQELVAVSGRKLNWPLGYPPP
DIPKCGFDNEDPACNQDHLSTLEVLALVGSLSLLGILIVSFFIYRKMQLEKELASELWRVRWEDVEPSSLERHLR
SAGSRLTLSGRGSNYGSLLTTEGQFQVFAKTAYYKGNLVAVKRVNRKRIELTRKVLFELKHMRDVQNEHLTRFVG
ACTDPPNICILTEYCPRGSLQDILENESITLDWMFRYSLTNDIVKGMLFLHNGAICSHGNLKSSNCVVDGRFVLK
ITDYGLESFRDLDPEQGHTVYAKKLWTAPELLRMASPPVRGSQAGDVYSFGIILQEIALRSGVFHVEGLDLSPKE
IIERVTRGEQPPFRPSLALQSHLEELGLLMQRCWAEDPQERPPFQQIRLTLRKFNRENSSNILDNLLSRMEQYAN
NLEELVEERTQAYLEEKRKAEALLYQILPHSVAEQLKRGETVQAEAFDSVTIYFSDIVGFTALSAESTPMQVVTL
LNDLYTCFDAVIDNFDVYKVETIGDAYMVVSGLPVRNGRLHACEVARMALALLDAVRSFRIRHRPQEQLRLRIGI
HTGPVCAGVVGLKMPRYCLFGDTVNTASRMESNGEALKIHLSSETKAVLEEFGGFELELRGDVEMKGKGKVRTYW
LLGERGSSTRG

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TTGCCCGGGACTAGGAGCTTAAGTGAAGAGGTACGCCTTGTTCGGTGGAAATCAGCCGTAGCCATGAGTTTCTGC CTCCGGGCATCCCCGGTCTCAAGTAGGCCTCATCTGCCGGCAAGGGCGCCCGAAACGCGGGAGGCGCCA**ATG**TCGC TGGTTGCTTACGCCAGCAGCGATGAGAGCGAGCCGGATGAGGCTGAGCCCGAGCCGGAGGAGAGAGGAGGCGGTGG CTCCTACATCTGGGCCCGCTTTAGGGGGCTTGTTCGCTTCTCTCCCTGCGCCCAAGGGTCCGGCCTTGCTGCCTC AGCCTCCTCCCCCTTGCCCTTCGGCCTGGGAGGCTTCCCCCCACCTCCAGGCGTGAGCCCGGCTGAAGCGGCGG GAGTTGGGGAGGGACTGGGATTGGGGTTGCCCTCGCCCCGAGGCCCTGGCCTCAATCTGCCCCCTCCAATTGGCG GTGCCGGTCCCCCGCTGGGGCTTCCCAAGCCAAAGAAGAGAGGAAAGAGCCCGTGAAGATCGCGGCGCCGGAGTTGC ATAAGGGAGATTCAGATTCTGAGGAAGATGAACCCACAAAGAAGAAAACTATCCTTCAGGGATCCAGTGAGGGGA CTGGTTTGTCTGCCTTGCTTCCCCAACCTAAAAACCTGACTGTGAAAGAGACTAACAGGTTGCTCCTGCCCCATG CCTTCTCCCGCAAACCCTCGGATGGCTCCCCTGATACTAAGCCCTCCAGACTGGCTTCTAAGACCAAGACTTCCT CTCTTGCCCCTGTTGTGGGCACCACAACCACCACTCCGTCGCCCTCTGCTATCAAGGCTGCTGCCAAGAGTGCTG CCCTGCAGGTGACAAAGCAGATCACGCAGGAAGAAGACGACAGTGATGAGGAAGTAGCCCCCGAAAACTTTTTCT CCCTCCCTGAAAAGGCTGAGCCACCTGGAGTTGAGCCATACCCTTACCCCATCCCCACTGTCCCTGAAGAGCTGC CTCCAGGCACGGAACCAGAGCCGGCTTTCCAGGACGATGCAGCCAATGCCCCCCTTGAATTCAAGATGGCAGCAG GTTCAAGTGGGGCCCCTTGGATGCCTAAGCCTGGGGACGACTACAGCTACAATCAGTTTTCCACATATGGCGATG CCACCCAGGAAATTGCCCCAGATGCCTCCTTCATCGATGACGAAGCATTTAAGCGGCTGCAGGGCAAGAGGAACC GAGGGAGAAAAATCAACTTTGTGGAGATCAAAGGTGATGACCAGCTCAGTGGGGCCCAGCAATGGATGACTA GGAAACACCAGATCACATATCTTATTCATCAGGCCAAGGAGCGGGAGCTGGAACTGAAGAACACCTGGTCAGAGA ${\tt ACAAGCTCAGCCGCCGTCAGACCCAAGCCAAATATGGATTC} \underline{{\tt TAG}} {\tt GGCTCTGGAACTGATTGCTCCCAGGATCTCC}$ TGCCAGCCCAGCTGGCCCCAGCTTCACCTCTGGGACCCCAGCTGCTCTAAGCCCAGGATCTCTTTCCCC AAGGACCCAGCCCTCGCCTCTGCGAGAATGAACATATTTGATAGATTTTCTTAACAAGTTAGAAAATTCAGCTC CTTTCTGTCCTGGAGCTAGCAAAGACTTGTGTGATGCCTCCGAAGGGGCTCTGAGTTCTGGGGTGGGAGTTTTGC

MSLVAYASSDESEPDEAEPEPEEEEAVAPTSGPALGGLFASLPAPKGPALLPPPPQMLAPAFPPPLLLPPPTGDP
RLQPPPPLPFGLGGFPPPPGVSPAEAAGVGEGLGLGLPSPRGPGLNLPPPIGGAGPPLGLPKPKKRKEPVKIAAP
ELHKGDSDSEEDEPTKKKTILQGSSEGTGLSALLPQPKNLTVKETNRLLLPHAFSRKPSDGSPDTKPSRLASKTK
TSSLAPVVGTTTTTPSPSAIKAAAKSAALQVTKQITQEEDDSDEEVAPENFFSLPEKAEPPGVEPYPYPIPTVPE
ELPPGTEPEPAFQDDAANAPLEFKMAAGSSGAPWMPKPGDDYSYNQFSTYGDANAAGAYYQDYYSGGYYPAQDPA
LVPTQEIAPDASFIDDEAFKRLQGKRNRGREEINFVEIKGDDQLSGAQQWMTKSLTEEKTMKSFSKKKGEQPTGQ
QRRKHQITYLIHQAKERELELKNTWSENKLSRRQTQAKYGF

GAGGAGGAGTGGGGACCGGGGGGGGGGGGGAGGAAGAGGCCTCGCGCAGAGGAGGAGCAATTGAATTTCAAACA GAGCGGAGCGCCGCCACCGCCGCACGCGCAAACTTGGGCTCGCGCTTCCCGGCCCGGCGCGCGGAGCCCGGGGG GCCCGGAGCCCCGCCATGTCGCGATCCAACCGGCAGAAGGAGTACAAATGCGGGGACCTGGTGTTCGCCAAGATG AAGGGCTACCCACACTGGCCGGCCCGGATTGACGAGATGCCTGAGGCTGCCGTGAAATCAACAGCCAACAAATAC CAAGTCTTTTTTTCGGGACCCACGAGACGCATTCCTGGGCCCCAAAGACCTCTTCCCTTACGAGGAATCCAAG GAGAAGTTTGGCAAGCCCAACAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGAGAACAACCCTACTGTC AAGGCTTCCGGCTATCAGTCCTCCCAGAAAAAGAGCTGTGTGGAAGAGCCTGAACCAGAGCCCGAAGCTGCAGAG AAGGAGAAGAACGAGAAAGGAGCGTTGAAGAGGAGGAGCAGGGGACTTGCTGGAGGACTCTCCTAAACGTCCCAAG GAGGCAGAAAACCCTGAAGGAGAGGAGGAGGAGGCAGCCACCTTGGAGGTTGAGAGGCCCCTTCCTATGGAGGTG GAAAAGAATAGCACCCCCTCTGAGCCCGGCTCTGGCCGGGGGCCTCCCCAAGAGGAAGAAGAAGAGGAGGAGGATGAA GAGGAAGAGGCTACCAAGGAAGATGCTGAGGCCCCAGGCATCAGAGATCATGAGAGCCTGTAGCCACCAATGTTT CAAGAGGAGCCCCCACCCTGTTCCTGCTGTCTGGGTGCTACTGGGGAAACTGGCCATGGCCTGCAAACTGGG AACCCCTTTCCCACCCCAACCTGCTCTCCTCTTCTACTCACTTTTCCCACTCCAAGCCCAGCCCATGGAGATTGA CCTGGATGGGGCAGCCACCTGGCTCTCACCTCTAGGTCCCCATACTCCTATGATCTGAGTCAGAGCCATGTCTT CTCCCTGGAATGAGTTGAGGCCACTGTGTTCCTTCCGCTTGGGAGGGGCAATCCTCAAATGCGGGGTGGGGGCAG CACAGGAGGCGCCTCCTTCTGAGCTCCTGTCCCCTGCTACACCTATTATCCCAGCTGCCTAGATTCAGGGAAA GTGGGACAGCTTGTAGGGGAGGGGCTCCTTTCCATAAATCCTTGATGATTGACAACACCCATTTTTCCTTTTGCC GACCCCAAGAGTTTTGGGAGTTGTAGTTAATCATCAAGAGAATTTGGGGCCTTCCAAGTTGTTCGGGCCCAAGGACC TGAGACCTGAAGGGTTGACTTTACCCATTTGGGTGGGAGTGTTGAGCATCTGTCCCCCTTTAGATCTCTGAAGCC ACAAATAGGATGCTTGGGAAGACTCCTAGCTGTCCTTTTTCCTCTCCACACAGTGCTCAAGGCCAGCTTATAGTC ATATATATCACCCAGACATAAAGGAAAAGACACATTTTTTAGGAAATGTTTTTAATAAAAGAAAATTACAAAAAA AAATTTTAAAGACCCCTAACCCTTTGTGTGCTCTCCATTCTGCTCCTTCCCCATCGTTGCCCCCATTTCTGAGGT TGTCATTTCTCATCCACATACCCTGACCTGGCCCCCTCAGTGTTGTCACCAGATCTGATTTGTAACCCACTGAGA GGACAGAGAAATAAGTGCCCTCTCCCACCCTCTTCCTACTGGTCTCTATGCCTCTTACAGTCTCGTCTCT TTTACCCTGGCCCCTCTCCCTTGGGCTCTGATGAAAAATTGCTGACTGTAGCTTTGGAAGTTTAGCTCTGAGAAC CGTAGATGATTTCAGTTCTAGGAAAATAAAACCCGTTGATTACT

MPNFSGNWKIIRSENFEELLKVLGVNVMLRKIAVAAASKPAVEIKQEGDTFYIKTSTTVRTTEINFKVGEEFEEQ TVDGRPCKSLVKWESENKMVCEQKLLKGEGPKTSWTRELTNDGELILŢMTADDVVCTRVYVRE

CAAACTTCGCAGTGCCGCGACCCCAGCCCTGGGTAGCCTGCAGC ATC GCCCAGCTGTTCCTGCCCCTGCTGGCAGCCCTGGTCCTGGCCCAGGCTCCTGCAGCTTTAGCAGATGTTCTGGAAGGAGACAGCTCAGAGGACCGCGC TTTTCGCGTGCGCATCGCGGGCGACGCGCCACTGCAGGGCGTGCTCGGCGGCGCCCTCACCATCCCTTGCCACGT $\verb|CCACTACCTGCGGCCACCGCCGGGCGGGCTGTGCTGGGCTCTCCGCGGGTCAAGTGGACTTTCCTGTCCCG| \\$ GGGCCGGGAGGCAGAGGTGCTGGTGGCGCGGGGAGTGCGCGTCAAGGTGAACGAGGCCTACCGGTTCCGCGTGGC $\verb|CTATCGCTGTGAGGTCCAGCACGGCATCGATGACAGCAGCGACGCTGTGGAGGTCAAAGGGGTCGTCTT| \\$ TCTCTACCGAGAGGCTCTGCCCGCTATGCTTTCTCCTTTTCTGGGGCCCAGGAGGCCTGTGCCCGCATTGGAGC $\verb|CCGGAACTATGGTGTGGTGGACCCGGATGACCTCTATGATGTGTACTGTTATGCTGAAGACCTAAATGGAGAACT| \\$ GTTCCTGGGTGACCCTCCAGAGAAGCTGACATTGGAGGAAGCACGGGCGTACTGCCAGGAGCGGGGTGCAGAGAT TGCCACCACGGGCCAACTGTATGCAGCCTGGGATGGTGGCCTGGACCACTGCAGCCCAGGGTGGCTAGCTGATGG CAGTGTGCGCTACCCCATCGTCACACCCAGCCAGCCTGTGGTGGTGGGGGGCTTGCCTGGTGTCAAGACTCTCTTCCT CTTCCCCAACCAGACTGGCTTCCCCAATAAGCACAGCCGCTTCAACGTCTACTGCTTCCGAGACTCGGCCCAGCC TTCTGCCATCCTGAGGCCTCCAACCCAGCCTCCAACCCAGCCTCTGATGGACTAGAGGCTATCGTCACAGTGAC AGAGACCCTGGAGGAACTGCAGCTGCCTCAGGAAGCCACAGAGAGTGAATCCCGTGGGGCCATCTACTCCATCCC CATCATGGAGGACGGAGGGGGGAGCTCCACTCCAGAAGACCCAGCAGAGGCCCCTAGGACGCTCCTAGAATT TGAAACACAATCCATGGTACCGCCCACGGGGTTCTCAGAAGAGGAAGGTAAGGCATTGGAGGAAGAAGAAGAATA CGAGCTCAGCAGCCCGGGCCCTGAGGCCTCTCTCCCCACTGAGCCAGCAGCCCAGGAGAAGTCACTCTCCCAGGC GCCAGCAAGGGCAGTCCTGCAGCCTGGTGCATCACCACTTCCTGATGGAGAGTCAGAAGCTTCCAGGCCTCCAAG GGTCCATGGACCACCTACTGAGACTCTGCCCACTCCCAGGGAGAGGAACCTAGCATCCCCATCACCTTCCACTCT GACAGGAAGCTCCGAGGGTGCCCCTTCCCTGCTTCCAGCCACACGGGCCCCTGAGGGTACCAGGGAGCTGGAGGC CAGCGCCAGCCGAGGTGGAGTGGCCGTGGTCCCCGCATCAGGTGACTGTGTCCCCAGCCCCTGCCACAATGGTGG CCTCCGCTTCTGCAACCCCGGCTGGGACGCCTTCCAGGGCGCCTGCTACAAGCACTTTTCCACACGAAGGAGCTG GGAGGAGGCAGAGACCCAGTGCCGGATGTACGGCGCGCATCTGGCCAGCATCAGCACACCCGAGGAACAGGACTT CATCAACAACCGGTACCGGGAGTACCAGTGGATCGGACTCAACGACAGGACCATCGAAGGCGACTTCTTGTGGTC GGATGCCGTCCCCTGCTCTATGAGAACTGGAACCCTGGGCAGCCTGACAGCTACTTCCTGTCTGGAGAGAACTG CGTGGTCATGGTGTGGCATGATCAGGGACAATGGAGTGACGTGCCCTGCAACTACCACCTGTCCTACACCTGCAA GATGGGGCTGGTGTCCTGTGGGCCGCCACCGGAGCTGCCCCTGGCTCAAGTGTTCGGCCGCCCACGGCTGCGCTA TGAGGTGGACACTGTGCTTCGCTACCGGTGCCGGGAAGGACTGGCCCAGCGCAATCTGCCGCTGATCCGATGCCA AGAGAACGGTCGTTGGGAGGCCCCCAGATCTCCTGTGTGCCCAGAAGACCTGCCCGAGCTCTGCACCCAGAGGA GGACCCAGAAGGACGTCAGGGGAGGCTACTGGGACGCTGGAAGGCGCTGTTGATCCCCCCTTCCAGCCCCATGCC AGGTCCC<u>TAG</u>GGGGCAAGGCCTTGAACACTGCCGGCCACAGCACTGCCCTGTCACCCAAATTTTCCCTCACACCC TGCGCTCCCGCCACCACAGGAAGTGACAACATGACGAGGGGTGGTGCTGGAGTCCAGGTGACAGTTCCTGAAGGG CAGGGCCGGAGTAAATCCCTAAGTGCCTCAACTGCCCTCTCCCTGGCAGCCATCTTGTCCCCTCTATTCCTCTAG GGAGCACTGTGCCCACTCTTTCTGGGTTTTCCAAGGGAATGGGCTTGCAGGATGGAGTGTCTGTAAAATCAACAG

MAQLFLPLLAALVLAQAPAALADVLEGDSSEDRAFRVRIAGDAPLQGVLGGALTIPCHVHYLRPPPSRRAVLGSP
RVKWTFLSRGREAEVLVARGVRVKVNEAYRFRVALPAYPASLTDVSLALSELRPNDSGIYRCEVQHGIDDSSDAV
EVKVKGVVFLYREGSARYAFSFSGAQEACARIGAHIATPEQLYAAYLGGYEQCDAGWLSDQTVRYPIQTPREACY
GDMDGFPGVRNYGVVDPDDLYDVYCYAEDLNGELFLGDPPEKLTLEEARAYCQERGAEIATTGQLYAAWDGGLDH
CSPGWLADGSVRYPIVTPSQRCGGGLPGVKTLFLFPNQTGFPNKHSRFNVYCFRDSAQPSAIPEASNPASNPASD
GLEAIVTVTETLEELQLPQEATESESRGAIYSIPIMEDGGGGGSSTPEDPAEAPRTLLEFETQSMVPPTGFSEEG
KALEEEEKYEDEEEKEEEEEEEVEDEALWAWPSELSSPGPEASLPTEPAAQEKSLSQAPARAVLQPGASPLPDG
ESEASRPPRVHGPPTETLPTPRERNLASPSPSTLVEAREVGEATGGPELSGVPRGESEETGSSEGAPSLLPATRA
PEGTRELEAPSEDNSGRTAPAGTSVQAQPVLPTDSASRGGVAVVPASGDCVPSPCHNGGTCLEEEEGVRCLCLPG
YGGDLCDVGLRFCNPGWDAFQGACYKHFSTRRSWEEAETQCRMYGAHLASISTPEEQDFINNRYREYQWIGLNDR
TIEGDFLWSDGVPLLYENWNPGQPDSYFLSGENCVVMVWHDQGQWSDVPCNYHLSYTCKMGLVSCGPPPELPLAQ
VFGRPRLRYEVDTVLRYRCREGLAQRNLPLIRCQENGRWEAPQISCVPRRPARALHPEEDPEGRQGRLLGRWKAL
LIPPSSPMPGP

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MFLTEDLITFNLRNFLLFQLWESSFSPGAGGFCTTLPPSFLRVDDRATSSTTDSSRAPSSPRPPGSTSHCGISTR CTERCLCVLPLRTSQVPDVMAPQHDQEKFHDLAYSCLGKSFSMSNQDLYGYSTSSLALGLAWLSWETKKKNVLHL VGLDSL

428/6881 FIGURE 398

TTGCGTAGGGGGCGGACTAAGGCTGTCAATTGGTCTGTTTTTTGTGCCGATCAATGAGATGGGTGCGGTGATTGG TCTCTCCAGAAGGTTCTGCCGGTTCCCCCAGCTCTGGGTACCCGGCTCTGCATCGCGTCGCCATGATGGGCCCATC GTCCAGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAACATCAATGCTG CCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTGGACCCAATGG GAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCGGCCAAGTCCA TGATCGAAATTAGCCGGACCCAGGATGAAGAGGTTGGAGATGGGACCACATCAGTAATTATTCTTGCAGGGGAAA TGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTACCGCAAGGCAT TGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTGAACA TCATCAACAGCTCTATTACTACCAAAGCCATCAGTCGGTGGTCATCTTTGGCTTGCAACATTGCCCTGGATGCTG TCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTGGAAAAGATAC CTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATGC GGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGAAAGCCAGACTG ACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAGCAGCTCTGTG AGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAGCACTACCTTA GGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAAATCAAGAAAA TTGGAGATGAATACTTTACTTTCATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTCTCCTCCGGGGGGCTA GCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTTCTCCTGGACC CTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGACAGAAAAATCCAAGGCCATGA CTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTGATCCAGAACT GTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACCCCAGGAGAACTGTGAGACCTGGGGTG TAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTGAAGCTGCAGA ACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGTTCAGAAGGGA TCAGGTTGGGGGGCAGCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACATGTAATTCTTC TCTATTGTAAGGTTTCCATTTAGTTTGCTTCCGATGATTAAATCTAAGTCATTTG

MGHRPVLVLSQNTKRESGRKVQSGNINAAKTIADIIRTCLGPKSMMKMLLDPMGGIVMTNDGNAILREIQVQHPA
AKSMIEISRTQDEEVGDGTTSVIILAGEMLSVAEHFLEQQMHPTVVISAYRKALDDMISTLKKISIPVDISDSDM
MLNIINSSITTKAISRWSSLACNIALDAVKMVQFEENGRKEIDIKKYARVEKIPGGIIEDSCVLRGVMINKDVTH
PRMRRYIKNPRIVLLDSSLEYKKGESQTDIEITREEDFTRILQMEEEYIQQLCEDIIQLKPDVVITEKGISDLAQ
HYLMRANITAIRRVRKTDNNRIARACGARIVSRPEELREDDVGTGAGLLEIKKIGDEYFTFITDCKDPKACTILL
RGASKEILSEVERNLQDAMQVCRNVLLDPQLVPGGGASEMAVAHALTEKSKAMTGVEQWPYRAVAQALEVIPRTL
IQNCGASTIRLITSLRAKHTQENCETWGVNGETGTLVDMKELGIWEPLAVKLQTYKTAVETAVLLLRIDDIVSGH
KKKGDDQSRQGGAPDAGQE

GAATTGCGGCCGT<u>ATG</u>CGCGGCTCTGTGGAGTGCACCTGGGGTTGGGGGCACTGTGCCCCCAGCCCCCTGCTCCT TTGGACTCTACTTCTGTTTGCAGCCCCATTTGGCCTGCTGGGGGGAGAAGACCCCGCCAGGTGTCTCTGGAGGTCAT $\verb|CCCTAACTGGCCTGGGCCCCCTGCAGAACCTGCTTCATATACGGGCAGTGGGCACCAATTCCACACTGCACTATGT|\\$ GTGGAGCAGCCTGGGGCCTCTGGCAGTGGTAATGGTGGCCACCACACCCCCCACAGCACCCCTGAGCGTCAACTG GAGCCTCCTGCTATCCCCTGAGCCCGATGGGGGCCTGATGGTGCTCCCTAAGGACAGCATTCAGTTTTCTTCTGC CCTTGTTTTTACCAGGCTGCTTGAGTTTGACAGCACCAACGTGTCCGATACGGCAGCAAAGCCTTTGGGAAGACC ATATCCTCCATACTCCTTGGCCGATTTCTCTTGGAACAACATCACTGATTCATTGGATCCTGCCACCCTGAGTGC CACATTTCAAGGCCACCCCATGAACGACCCTACCAGGACTTTTGCCAATGGCAGCCTGGCCTTCAGGGTCCAGGC CTTTTCCAGGTCCAGCCGACCAGCCCAACCCCCTCGCCTCCTGCACACAGCAGACACCTGTCAGCTAGAGGTGGC CCTGATTGGAGCCTCTCCCCGGGGAAACCGTTCCCTGTTTGGGCTGGAGGTAGCCACATTGGGCCAGGGCCCTGA CTGCCCCTCAATGCAGGAGCAGCACTCCATCGACGATGAATATGCACCGGCCGTCTTCCAGTTGGACCAGCTACT GTGGGGCTCCCTCCCATCAGGCTTTGCACAGTGGCGACCAGTGGCTTACTCCCAGAAGCCGGGGGGCCGAGAATC AGCCCTGCCCAAGCTTCCCCTCTTCATCCTGCCTTAGCATACTCTCTTCCCCAGTCACCCATTGTCCGAGC CTTCTTTGGGTCCCAGAATAACTTCTGTGCCTTCAATCTGACGTTCGGGGCCTTCCACAGGCCCTGGCTATTGGGA CCAACACTACCTCAGCTGGTCGATGCTCCTGGGTGTGGGCTTCCCTCCAGTGGACGGCTTGTCCCCACTAGTCCT GGGCATCATGGCAGTGGCCCTGGGTGCCCCAGGGCTCATGCTGCTAGGGGGGCGGCTTGGTTCTGCTGCACCA ${\tt CAAGAAGTACTCAGAGTACCAGTCCATAAAT} \underline{{\tt TAA}} {\tt GGCCCGCTCTCTGGAGGGAAGGACATTACTGAACCTGTCTT}$ GCTGTGCCTCGAAACTCTGGAGGTTGGAGCATCAAGTTCCAGCCGGCCCCTTCACTCCCCCATCTTGCTTTTCTG TGGAGGCGGGCAGGGGACAGGGCTATTGATAAGGTCCCCTTGGTGTTGCCTTCTTGCATCTCCACACATTTCCCT TGGATGGGACTTGCAGGCCTAAATGAGAGGCATTCTGACTGGTTGGCTGCCCTGGAAGGCAAGAAAATAGATTTA TTTTTTTC

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MRGSVECTWGWGHCAPSPLLLWTLLLFAAPFGLLGEKTRQVSLEVIPNWLGPLQNLLHIRAVGTNSTLHYVWSSL GPLAVVMVATNTPHSTLSVNWSLLLSPEPDGGLMVLPKDSIQFSSALVFTRLLEFDSTNVSDTAAKPLGRPYPPY SLADFSWNNITDSLDPATLSATFQGHPMNDPTRTFANGSLAFRVQAFSRSSRPAQPPRLLHTADTCQLEVALIGA SPRGNRSLFGLEVATLGQGPDCPSMQEQHSIDDEYAPAVFQLDQLLWGSLPSGFAQWRPVAYSQKPGGRESALPC QASPLHPALAYSLPQSPIVRAFFGSQNNFCAFNLTFGASTGPGYWDQHYLSWSMLLGVGFPPVDGLSPLVLGIMA VALGAPGLMLLGGGLVLLLHKKYSEYQSIN

432/6881 FIGURE 402

GGCAGCATGGCGTCTTTCCGGCTTCTCCAAACCCTTGCGAAAAACTTTATTGGCAAAGCTATCAGAGAACGGACA GTGTACCCACTGAGGCGGCCAAAGCTTAACTGGATCAGGGCAGGATGACATGACCTTGTGGTAGATCCCAGAACT GAGGCCCCAGGATGACAGAACAGGAGACCCTGGCCCTACTGGAAGTGAAGAGGTCTGATTCCCCAGAGAAGAGCT CACCCCAGGCCTTGGTTCCCAATGGCCGGCAGCCAGAAGGGGGAAGGTGGGGCCGAATCCCCGGGAGCTGAGTCCC TCAGAGTGGGGTCTTCAGCTGGATCTCCCACAGCCATAGAGGGGGGCTGAGGATGGTCTAGACAGCACAGTAAGTG TTGAACCAGAGCCCCCTGAGTCAGAACCACTTACCAAGCTAGAGGAGCTGCCCGAAGACGATGCCAACCTGCTGC CTGAGAAAGCGGCCCGTGCCTTCGTGCCTATTGACCTACAGTGCATTGAGCGGCAGCCCCAAGAAGACCTTATCG GCAAGTGGGCTGAGGCAGTGGTGAGGCCGCCTGGCTGTTCCTGTGGGGGGCTGCGGGAGCTGTGGAGACCGTGAGT GGCTAAGGGCTGTGGCCTCCGTGGGAGCCGCACTCATTCTCTTCCCTTGCCTACTATACGGGGCATATGCCTTCC TGCCGTTTGATGTCCCACGGCTGCCCACCATGAGTTCCCGCCTGATCTACACACTGCGCTGCGGGGTCTTTGCCA CCTTCCCCATTGTGCTGGGGATCCTGGTGTACGGCCTGAGCCTGTTATGCTTTTCTGCCCTTCGGCCCTTTGGGG AGCCACGGCGGAGGTGGAGATCCACCGGCGATATGTGGCCCAGTCGGTCCAGCTCTTTATTCTCTACTTCTCA ACCTGGCCGTGCTTTCCACTTACCTGCCCCAGGATACCCTCAAACTGCTCCCTCTGCTCACTGGTCTCTTTGCCG TCTCCCGGCTGATCTACTGGCTGACCTTTGCCGTGGGCCGCTCCTTCCGAGGCTTCGGCTACGGCCTGACGTTTC TGCCACTGCTGTCGATGCTGATGTGGAACCTCTACTACATGTTCGTGGTGGAGCCGGAGCGCATGCTCACTGCCA CTCCGCCCTCGCCCTCGGAGTAGGGGGTAGCGGCTTGGGTCTGACACATCTTTGAACCTTGTGGCCAGGCCTGGA TCTCCCCTTGCCGGAGCTGCCCTTCACCTTTGGGGCCCGAGACAGTCATAAGGGATGGACTTAGTTTTCTTGCAG GGAAAAAGGTGGACAGCCGTGTTTCTTAAGGATGCTGAGGGCATGGGGCCAGGACCAGGGGAGAGGCACAGCTCC TTCCTGAGCAGCCTCTCACCACTGCCACAAGGCTCCCTAATGCTGGTCTCTGCTCCACTCCCCGGCTTCCCGTGA GGCAGGAGGCAGAGCCACAGCCCAAGGCCCTGACCACTTCTGTGCCAGTTGTCTAAGCAGAGCGCCTCAGGGACGC TGGAAATGCCTTAAGGATAGAGGCTGGGCATCACATCAAATGGGACTGTGGTGTTTGGTGAAAACCTTCCTGAGG ATCTGGATTCAGGACCCTCCATGACTGGCCTATTTACTGTTTACAGCTGGCCAGTGCAGAGCTGCTGCTCTTTTA CCTTTTTAGGCCCCTGTAACTTCCCACCTTTAAACTGCCCAGAAGGCATGCCTCTCCCACAGGAAGAGGGGAGCA GACAGGGAAATCTGCCTACCAAGAGGGGTGTGTGTGTCTTTGTGCCCACACGTGGTGGCTGGGGAGTGCCTGGAT

MTEQETLALLEVKRSDSPEKSSPQALVPNGRQPEGEGGAESPGAESLRVGSSAGSPTAIEGAEDGLDSTVSEAAT LPWGTGPQPSAPFPDPPGWRDIEPEPPESEPLTKLEELPEDDANLLPEKAARAFVPIDLQCIERQPQEDLIVRCE AGEGECRTFMPPRVTHPDPTERKWAEAVVRPPGCSCGCGSCGDREWLRAVASVGAALILFPCLLYGAYAFLPFD VPRLPTMSSRLIYTLRCGVFATFPIVLGILVYGLSLLCFSALRPFGEPRREVEIHRRYVAQSVQLFILYFFNLAV LSTYLPQDTLKLLPLLTGLFAVSRLIYWLTFAVGRSFRGFGYGLTFLPLLSMLMWNLYYMFVVEPERMLTATESR LDYPDHARSASDYRPRPWG

ACTCAGTGTTCGCGGGAGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGATCC CCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGCCACTCCGACTCCGAGCAGTCTCTGTCCTTCGACC $\tt CGAGCCCGCGCCCTTTCCGGGACCCCTGCCCGCGGGCAGCGCTGCCAACCTGCCGGCC{\color{red} \underline{\textbf{ATG}}} \texttt{GAGACCCCGTCC}$ AACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCGCC $\tt CTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCT$ CAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGAAG AAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGGAC TTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTGAC AATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACCAG GTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGATGAGAGG AACAGCAACCTGGTGGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCGACAGCCTCTCTGCCCAG CTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTGAG CGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGCAG CTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCTTG GAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCAC TCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCTTC TCACAGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGC AACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGACT TACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCACC CACAGCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTC ATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGGAT ${\tt GAGGATGGAGATGACCTGCTCCATCACCACCATGTGAGTGGTAGCCGCCGC\underline{TGA}_{\tt GGCCGAGCCTGCACTGGGGCCCGC}}$ ACCCAGCCAGGCCTGGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTGGAA CTTT

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEVVSREVS GIKAAYEAELGDARKTLDSVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEALLNSKEAALST ALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETR LVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERNSNLVGAAHEELQQSRIRID SLSAQLSQLQKQLAAKEAKLRDLEDSLARERDTSRRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHA YRKLLEGEEERLRLSPSPTSQRSRGRASSHSSQTQGGGSVTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGK FVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPPKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCGNS LRTALINSTGEEVAMRKLVRSVTVVEDDEDEDGDDLLHHHHVSGSRR

GCGCAGACGCCCCAGCCCCCCCCCCCAAAGGGGCGAGCGACGCCAAGCTCTGCGCTCTCTACAAAGAGGCC GAGCTGCGCCTGAAGGGCAGCAGCACACCACGGAGTGTTCCCGTGCCCACCTCCGAGCACGTGGCCGAGATC GTGGGCAGGCAAGGCTGCAAGATTAAGGCCTTGAGGGCCAAGACCAACACCTACATCAAGACACCGGTGAGGGGC GAGGAACCAGTGTTCATGGTGACAGGGCGACGGGAGGACGTGGCCACAGCCCGGCGGGAAATCATCTCAGCAGCG GAGCACTTCTCCATGATCCGTGCCTCCCGCAACAAGTCAGGCGCCGCCTTTGGTGTGGCTCCTGCTCTGCCCGGC CAGGTGACCATCCGTGTGCGGGTGCCCTACCGCGTGGTGGGGGCTGGTGGTGGGCCCCAAAGGGGCAACCATCAAG CGCATCCAGCAGCAAACCAACACATACATTATCACACCAAGCCGTGACCGCGACCCCGTGTTCGAGATCACGGGT GCCCCAGGCAACGTGGAGCGTGCGCGCGAGGAGATCGAGACGCACATCGCGGTGCGCACTGGCAAGATCCTCGAG TACAACAATGAAAACGACTTCCTGGCGGGGAGCCCCGACGCAGCAATCGATAGCCGCTACTCCGACGCCTGGCGG GTGCACCAGCCCGGCTGCAAGCCCCTCTCCACCTTCCGGCAGAACAGCCTGGGCTGCATCGGCGAGTGCGGAGTG GACTCTGGCTTTGAGGCCCCACGCCTGGGTGAGCAGGGCGGGGACTTTGGCTACGGCGGGTACCTCTTTCCGGGC CCGGGCGCACACCGCTCCCCTGCCACTTCCGCGGGACCCGAGCTGGCCGGACTCCCGAGGCGCCCCCCGGGAGAGAG CCGCTCCAGGGCTTCTCTAAACTTGGTGGGGGCGGCCTGCGGAGCCCCGGCGGCGGGGGGATTGCATGGTCTGC TTTGAGAGCGAAGTGACTGCCGCCCTTGTGCCCTGCGGACACACCTGTTCTGCATGGAGTGTGCAGTACGCATC TGCGAGAGGACCCAGAGTGTCCCGTCTGCCACATCACAGCCACGCAAGCCATCCGAATATTCTCCTAAGCC GGGTGCGCCACTTTCAGAGCCTCTGGTCACCCTGTCCTGGAAAGATTGGGAGGGGGCCAGACTGAAAATTTTACT AGAGTTACAACTCTGATACCTCAACACCCCTTAAATCTGGAAGCAGCTAAGAGAAACTTTTGTTTTGCCAGAGG TGGCCACTAAGGCATTCTGACGCCCTCTGCCCACCTCCCCCGCTGTGTGTCACTCCACCCCTTCTTCCGAGGAGG GGGTGGGTAAAAGGGAGAGGGAGAATTACCACCTGTATCTAGAGGTGCTCTTTGCAATCCCTAAGCCCTCTGGTC CAGCCCAGCTTTGGGGACACCATCCTTCTGGGGAGAAGTAGGGGGAGGAATATTTGGATGGTCCCTCCATTCCTC TTCAGGCATCTGGAGGCCCTCTCCCCCACTCCTCCAAAGAAACATCTCAAATTATTGATGGAATGTATCCCCATT CTCAGTGAAAATGTGAGGAGGGGACTAATACTGGGGTAAAGGGTCAAACCCCCACCTTCATCACTATGGGCATTA TATTTAGGGAGTAGTTCTTGGGCTGGATTTTCTGGTTGTGGAAGTGGGGGCGCCAGAGTAGTGTGTCTGCTATTT AAAGGAGCAGGAAAGGGCGTGAGGCAGGAGGAGAGACTGGTGGAGGGAAGAGCTGCTCCCCATGCAGTGCCCG ACTCCCTGCACCCCTCTCAACCTGACCTGAACCTTTATTGAATCCTTATTAGCTTGAATCCTTATTAGCTTGAAT CCTCCATGCAAATCATGGAGTCTGTGTCCCACCTGATGTGGTTGAGGAGAAGCCAGGTCTTCAAAGAGGGGTCAG CCTGGGGCAAAGCAGGACTGGGGGGGGGGGCAGCAGGGCCTATTCTGAGAATCACATATTGTTACAGGCCTTG CACCCCTTTGCTGCTTCCCTCCTGCTCATTTGGGGCTGCCACCAGCTCTCCACCCTCCTGGTTCCGCTGGCCGG GCCAAGAGAGGATGGAGGGATGGGAGTCCCAGGAGATCCTTGTAAATAGTGGGGTGGGACTGTTCTGAGTGATCA GGAGGTCACAGCCAAGAAAACTGCCCTGTGACGACTTCCCTCCTTCCCGCCTATGTGAGCCATCCTGAGATGTCT GCAAATTCAATCCCACCCTTACCAATTGAGCCAAACCTAGAAACAAAACACAAAACACGAATAGTGAGAGACAAAA

LRLKGSSNTTECVPVPTSEHVAEIVGRQGCKIKALRAKTNTYIKTPVRGEEPVFMVTGRREDVATARREIISAAE
HFSMIRASRNKSGAAFGVAPALPGQVTIRVRVPYRVVGLVVGPKGATIKRIQQQTNTYIITPSRDRDPVFEITGA
PGNVERAREEIETHIAVRTGKILEYNNENDFLAGSPDAAIDSRYSDAWRVHQPGCKPLSTFRQNSLGCIGECGVD
SGFEAPRLGEQGGDFGYGGYLFPGYGVGKQDVYYGVAETSPPLWAGQENATPTSVLFSSASSSSSSSAKARAGPP
GAHRSPATSAGPELAGLPRRPPG

438/6881 FIGURE 408

GGAGGAGCCGGGCGGGCGGCGGGCGGGTGGCGGCGGCGCATGGCGGAGCCGAGCGGGGCCGAGACGAGG CCCCCATTCGGGTCACCGTCAAGACCCCCAAGGACAAGGAGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAG GAGTTCAAAGAGGAAATCTCCCGGAGGTTTAAGGCTCAGCAGGATCAGCTGGTCCTGATCTTCGCAGGCAAGATC CTCAAGGATGGGGACACACTGAACCAGCACGGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCT CAGAAGGCTCAAGATCCAGCTGCTGCCACTGCTTCTTCCCCCTCCACACCTGACCCTGCCTCAGCACCCTCCACC ACGCCTGCTTCACCCGCCACCCCTGCCCAGCCCTCCACCTCTGGCAGTGCCTCTTCAGATGCTGGCAGTGGAAGC GGCTTTGGGGGCATCCTGGGGCTGGGCAGCCTAGGCCTGGGCTCTGCCAACTTCATGGAGCTGCAGCAGCAGATG CAGCGGCAGCTGATGTCCAATCCTGAGATGCTGTCACAGATCATGGAGAACCCCCTGGTCCAGGATATGATGTCT AACCCTGATCTGATGCGTCACATGATTATGGCCAACCCCCAGATGCAGCAGTTGATGGAGCGGAACCCTGAGATC AGCCACATGCTCAATAACCCTGAACTCATGAGGCAGACAATGGAGCTTGCTCGGAATCCAGCCATGATGCAAGAG ATGATGCGGAACCAGGACCGGGCCCTGAGCAACCTTGAGAGCATCCCTGGAGGGTATAATGCCCTCCGCCGCATG TACACGGACATCCAGGAGCCCATGTTCAGTGCTGCCCGGGAACAGTTTGGCAACAATCCCTTCTCTCCCTGGCC ACAGTCTCGAACCCCTTTGGGATCAATGCGGCTAGCCTGGGGTCAGGGATGTTCAATAGCCCAGAAATGCAAGCC CTCCTCCAGCAGATCTCTGAGAACCCCCAGCTGATGCAGAATGTGATCTCAGCACCCTACATGCGCAGCATGATG CAGACGCTTGCCCAGAACCCCGACTTTGCTGCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCCAA CTGCAGGAGCAGCTCCGCCTGCAGCTCCCAGTCTTCCTGCAGCAGATGCAGAACCCAGAGTCACTCTCCATCCTT ACCAATCCCCGAGCCATGCAGGCATTGCTGCAGATCCAGCAGGGACTACAGACCTTGCAGACCGAGGCCCCTGGG CCCGAGGCCCCACTTCCTCACCAGCCACGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCCAGCAGCAA CTCATGCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAAACTCACAGGTGCAGACGCCAGAAGTGAGATTTCAG CAGCAGCTGGAGCAGCTCAACTCCATGGGCTTCATCAATCGTGAGGCCTAACCTGCAGGCCCTGATTGCCACAGGA GGGGACATCAACGCAGCTATCGAGAGACTGCTGGGCTCCCAGCTCTCCTAATCCCTCGGCCCATGCCTCCTGCCT CTCCCCTCCATGTCAGCATTCGGTTCTTCTGTCAATCCTTACCCTCTGCAGCTTGTCCTCCCTTCCGTCTT AGTTTCATTGATTGACTCTACCTCCTTGCCCCACACCACTTTTGCAATCTTTAAACTTTCAGTGGCTGTGCAGAG TCGAGGGAGGAACCAGCTCTCTGGTTTACTGGAACATAGTCTTCCATCTATACCACTAGGGTTTTGTCTTATGTT GGTGGGAACTGTTGGAAATTCCAGGGTAAGGAGGAAGATGCCTGTTCTCCCTGTCTGAAGAGGGAACATGAGACAG CTCTCTGGACAGGAATTAACAAACGCTGGAGCAGCCCAGAGGAAATTCGTGTGAAAGAGGAGGGAATGAGATTAT TCGGAGGAAGGGAATGGGGGAGACAGCCTGAGTAAAAGGCTTGGAAGTTGGAATTAACAGTGGGGAGCAGAAGCA CTCATAGCTCTTTTAGGCAGAAGAATCCAGGCCCGAGCTGGCAGAAGAAGACTTAGAGATGCTAATGGAATTTAAA CTGAAAAAAGGAGCCCAATGAAGCTAAGCGCCACACCCCCACAAGGGGTCATATTGGCTTTAGTTCCTCAAGCATA GCCCCCTCAAAAGACATGAAGGGGGTTGGGGTCTGTGTGAGTAGTGGGGAGGTGCATGTGTATCCACATGTGTG CATACACTCTTAAGTTGGGTGGGAAGTGGATTCCTTGTTGGTTTCTGGTTCAGAGTGCTCTCCCACCACCAGAGA GGGTAACCCAGAGGTAATGTGGGTACCCTTTCTGAAGCTGTCAGGGCTGTGACTAGCACCCTTATCACCCCTCAC TGCCTTGTGGGAATAGTAGAGGGTTTTTTTCCTCCAGAGCCCCTGGCCTTTCAGTTCTTAACTATTTCCCTCCAG GCCAGAAAGTTTTCTTTGAGGAAGGAGAGAGAGGGTGGCAATGATGCCTTTGATCTGGAATTGGACATTTCTCT GGCTGAGAATATGACGGCAAGAGGAACAGAGTTTGCTCCAAGTGGGAAAGGGTCCCAAGCAGTCCAGAGAAGATG

 $\label{thm:mass} \begin{tabular}{l} MRLLSFVVLALFAVTQAEEGARLLASKSLLNRYAVEGRDLTLQYNIYNVGSSAALDVELSDDSFPPEDFGIVSGM\\ LNVKWDRIAPASNVSHTVVLRPLKAGYFNFTSATITYLAQEDGPVVIGSTSAPGQGGILAQREFDRRFSPHFLDW\\ AAFGVMTLPSIGIPLLLWYSSKRKYDTPKTKKN\\ \end{tabular}$

FIGURE 411A

TCCTCCCTGGTCCCCCGTCCGATTATGTCTCGGATCGAATCCCTCACGCGGGCGCGGATCGACCGGAGCAGAGA GCTGGCGAGCAAGACCCGGGAAAAGGAGAAAATGAAGAAAGCCAAGGATGCCCGCTATACAAATGGGCACCTCTT CACCACCATTTCAGTTTCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCAT GCAACAGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGCAGTCCGTTTCTCTTCGAAGTAAGACAACCATCCG GGAGCGGCCAAGCTCGGCCATCTACCCCTCCGACAGCTTCCGGCAGTCCCTCCTGGGCTCCCGCCGTGGCCGCTC CTCCTTGTCTTTAGCCAAGAGTGTTTCTACCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCCTGGGGCT GCGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCCTATCCGTGGAATCCCTCATTGA TCTTGCTGTGGACAGCAGCTTCCTGCAGCAGCATAAAAAGGAGGTGATGAAGCAGCAAGATGTCATCTATGAGCT AATCCAGACAGAGCTGCACCATGTGAGGACACTGAAGATCATGACCCGCCTCTTCCGCACGGGGATGCTGGAAGA GCTACACTTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCCTGCGTGGACGAGCTCAGTGACATCCATACACGCTT GGGTGATCTGCTCATCAGCCAGTTCTCAGGTCCTAGTGCGGAGCAGATGTGTAAGACCTACTCGGAGTTCTGCAG CCGCCACAGCAAGGCCTTAAAGCTCTATAAGGAGCTGTACGCCCGAGACAAACGCTTCCAGCAATTCATCCGGAA AGTGACCCGCCCGCCGTGCTCAAGCGGCACGGGGTACAGGAGTGCATCCTGCTGGTGACTCAGCGCATCACCAA GTACCCGTTACTCATCAGCCGCATCCTGCAGCATTCCCACGGGATCGAGGAGGAGCGCCAGGACCTGACCACAGC ACTGGGGCTAGTGAAGGAGCTGCTGTCCAATGTGGACGAGGGTATTTATCAGCTGGAGAAAGGGGCCCGTCTGCA GGAGATCTACAACCGCATGGACCCTCGGGCCCAAACCCCAGTGCCTGGCAAGGGCCCCTTTGGCCGAGAGGAACT TCTGAGGCGCAAACTCATCCACGATGGCTGCCTGCTCTGGAAGACAGCGACGGGGGCGCTTCAAAGATGTGCTAGT GCTGCTGATGACAGATGTACTGGTGTTTCTCCAGGAAAAGGACCAGAAGTACATCTTTCCTACCCTGGACAAGCC TTCAGTGGTATCGCTGCAGAATCTAATCGTACGAGACATTGCCAACCAGGAGAAAGGGATGTTTCTGATCAGCGC AGCCCCACCTGAGATGTACGAGGTGCACACAGCATCCCGGGATGACCGGAGCACCTGGATCCGGGTCATTCAGCA GAGCGTGCGCACATGCCCATCCAGGGAGGACTTCCCCCTGATTGAGACAGAGGATGAGGCTTACCTGCGGCGAAT TAAGATGGAGTTGCAGCAGAAGGACCGGGCACTGGTGGAGCTGCTGCGAGAGAAGGTCGGGCTGTTTGCTGAGAT GACCCATTTCCAGGCCGAAGAGGATGGTGGCAGTGGGATGGCCCTGCCCACCCTGCCCAGGGGCCTTTTCCGCTC TGAGTCCCTTGAGTCCCCTCGTGGCGAGCGGCTGCTGCAGGATGCCATCCGTGAGGTGGAGGGTCTGAAAGACCT TAACACGAGTCCTGGGGTCACTGCCAATGGTGAGGCCAGAACCTTCAATGGCTCCATTGAACTCTGCAGAGCTGA CTCAGACTCTAGCCAGAGGGATCGAAATGGAAATCAGCTGAGATCACCGCAAGAGGGGGGGTTACAGCGATTGGT CAATCTCTATGGACTTCTACATGGCCTACAGGCAGCTGTGGCCCAGCAGGACACTCTGATGGAAGCCCGGTTCCC TGAGGGCCCTGAGCGGCGGAGAAGCTGTGCCGAGCCAACTCTCGGGATGGGGAGGCTGGCAGGGCTGGGGCTGC CCCTGTGGCCCCTGAAAAGCAGGCCACGGAACTGGCATTACTGCAGCGGCAACATGCGCTGCTGCAGGAGGAGCT ACGGCGCTGCCGGCGGCTAGGTGAAGAACGGGCAACCGAAGCTGGCAGCCTGGAGGCCCGGCTCCGGGAGAGTGA GCAGGCCCGGGCACTGCTGGAGCGTGAGGCCGAAGAGGCTCGAAGGCAGCTGGCCGCCCTGGGCCAGACCGAGCC ACTCCCAGCTGAGGCCCCCTGGGCCCGCAGACCTGTGGATCCTCGGCGGCGCAGCCTCCCCGCAGGCGATGCCCT GTACTTGAGTTTCAACCCCCCACAGCCCAGCCGAGGCACTGACCGCCTGGATCTACCTGTCACTACTCGCTCTGT CCATCGAAACTTTGAGGACCGAGAGAGGCAGGAACTGGGGAGCCCCGAAGAGCGGCTGCAAGACAGCAGTGACCC GGACATCCCGGAGGAGACGGAGAGCCGCGACGGGGAGGCTGTAGCCTCCGAGAGCTAAGGGGGCCCCTCCCCCCT GCCCCGTGCCCCACTGAAGAACATTACTGAGGGGGCTAACCTTGGGGACTCCAATTTGCCAATGATGAGGGAACA TTTGAAAGAACTGCAAATTGTCCTTGCCAGCTCTTGGGATCCTTGGATACCTGGGGCCATTTAAGAAGCTAGGGG AATTAGGCCACAACACCCCCTGGGACATCCGAAAGCTACACCACAGATGCCAGTGGTTCATGCCTTCTTCCCGCA GGAACCAAGCCATAGGGATCAGAGGGCCTTGTCCTTGAACACTACTGGGGTATATTCAGGCTCATCCACGCAGCT GCTGGGTTCTTGCCCTAACGGCCCTCCCCTGCAACATCCGTCTTGGAGGAGAGGCTGCAGCCACAGCACCCTACT GCCCTTTAAATAAAGGAGGGCTGTGGGCAGGGCCATGTCCCTTTCTCCTCTCCCCTCAACCTCTTACTGCTGTTC

442/6881 FIGURE 411B

ATGCAGCAGCACGTTCAGCTCTTGACCCAAATCCACCTTCTTGCCACCTGCAACCCCCAACCTCAATCCGGAGGCC ACTACCACCAGGATATTTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAAC CCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCAGCTGATTGAAGACTTCAGCACACAT GCTTGGATTCTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAAT CCCCAGGATAAGATCGTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGAACT GAGTTTCCTAATCCTCTAATCAGCAAGTACCTTCTAACCTGCAAAACTGCCCACCAACTGACAGTGAGAATCAAG AACCTCAACATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGA TTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGCGGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATG ACTGGAACCACTGAGATCAACTCAGATCGAAGCCTAGAAAAAGACAATTTGGAGTTGGGGAGTGAATCTCGGTAC ${\tt CCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCACCCGTTTCCCCAGGAAGGCTTGGAGA}$ CAGAAGCGTTCATCAGTCCTGAAGCCCCTCCTTATCCAACCCAGCCCTCTCTCCCAGCCCAGCTTCAACCCTGGG AAAACACCAGCCCGATCAACTCATTCAGAAGCCCCTCCGAGCAAAATGGTGCTCCGGATTCCTCACCCAATACAG CCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCT GCCCCTGTGCCCAAGGTAATGCTGCCCTCCCTTGCCCCTTCTAAGTTTCGAAAGCCATATGTGAGACGGAGACCC TCAAAGAGAAGAGGAGTCAAGGCCTCTCCCTGTATGAAACCTGCCCCTGTTATCCACCACCCTGCATCTGTTATC TTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCG AACCAGTCCCTTGTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCC ACCCCTGAAGATAAGGCCCACGTGAATGTGGACATTGCTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGC GGGCCTCCACTAGCAGATGCAGAGTGCCAAGAAGGATTGTCAGAGAATAGTGCCTGTCGCTGGACCGTTGTGAAA ACAGAGGAGGGAGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTCTCTAAACAACCCTACCCCTGGG GATTTAGAGGAAATTGTCAAGATGGAACCTGAAGAAGCTAGAGGGAAATCAGTGGATCCCCTGAGCGTGATATT TGTGATGACATCAAAGTGGAACATGCTGTGGAATTGGACACTGGTGCCCCAAGCGAGGAGTTGAGCAGTGCTGGA GAAGTAACGAAACAGACAGTCTTACAGAAGGAAGAGGAGGAGGAGTCAGCCAACTAAAACCCCTTCATCTTCAA GAGCCCCCTGATGAAGGAACCTCAGGGACAGATGTGAACAAAGGATCATCAAAGAATGCTTTGTCCTCAATGGAT CAAGATGAGGAAGATGAAATGTCATCAGCTTCTGAGGAATCTGTGCTTTCTGTCCCAGAACTCCAGGTGAGAGCT **ACTATGGATAGTCCTAAAATCATTTGTATTTGA**

444/6881 FIGURE 413

MQQHVQLLTQIHLLATCNPNLNPEATTTRIFLKELGTFAQSSIALHQYNPKFQTLFQPCNLMGAMQLIEDFSTH VSIDCSPHKTVKKTANEFPCLPKQVAWILATSKVFMYPELLPVCSLKAKNPQDKIVFTKAEDNLLALGLKHFEGT EFPNPLISKYLLTCKTAHQLTVRIKNLNMNRAPDNIIKFYKKTKQLPVLGKCCEEIQPHQWKPPIEREEHRLPFW LKASLPSIQEELRHMADGAREVGNMTGTTEINSDRSLEKDNLELGSESRYPLLLPKGVVLKLKPVATRFPRKAWR QKRSSVLKPLLIQPSPSLQPSFNPGKTPARSTHSEAPPSKMVLRIPHPIQPATVLQTVPGVPPLGVSGGESFESP AALPAVPPEARTSFPLSESQTLLSSAPVPKVMLPSLAPSKFRKPYVRRPSKRRGVKASPCMKPAPVIHHPASVI FTVPATTVKIVSLGGGCNMIQPVNAAVAQSPQTIPITTLLVNPTSFPCPLNQSLVASSVSPLIVSGNSVNLPIPS TPEDKAHVNVDIACAVADGENAFQGLEPKLEPQELSPLSATVFPKVEHSPGPPLADAECQEGLSENSACRWTVVK TEEGRQALEPLPQGIQESLNNPTPGDLEEIVKMEPEEAREEISGSPERDICDDIKVEHAVELDTGAPSEELSSAG EVTKQTVLQKEEERSQPTKTPSSSQEPPDEGTSGTDVNKGSSKNALSSMDPEVRLSSPPGKPEDSSSVDGQSVGT PVGPETGGEKNGPEEEEEEDFDDLTQDEEDEMSSASEESVLSVPELQVRAGEYSQVFRGLSNMYHLLICHLLACC TMDSPKIICI

 ${\tt ACTAGTCCTCGACTCACGTGCAAGG} \underline{{\tt ATG}} {\tt ATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGA}$ $\tt CCCTGGGCGTTTTTTACACATGGGGACCCAGGCTCGCCAAAGCATTGCTGCTCACCTAGATAACCAGGTTCCAGT$ TGAGAGTCCGAGAGCTATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCA CTACAACATCTCCCCCCAGGATTTGGAGACTGTATTTCCCCATGGCCTTCCTCCTCGCTTTGTGATGCAGGTGAA GACATTCAGTGAAGCTTGCCTGATGGTAAGGAAACCAGCCCTAGAACTTCTGCATTACCTGAAAAAACACCAGTTT TGCTTATCCAGCTATACGATATCTTCTGTATGGAGAGAGGGAACAGGAAAAACCCTAAGTCTTTGCCATGTTAT TCATTTCTGTGCAAAACAGGACTGGCTGATACTACATATTCCAGATGCTCATCTTTGGGTGAAAAATTGTCGGGA TCTTCTGCAGTCCAGCTACAACAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTGGCTGAAGAATTTCAA AACTACAAATGAGCGCTTCCTGAACCAGATAAAAGTTCAAGAGAAGTATGTCTGGAATAAGAGAAAAGCACTGA ${\tt GAAAGGGAGTCCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGAGGAACGCCACAGATGCAGTTGGAAT}$ TCTTTGGGGAAGAACCACTCTGAAAAGAGAAGATAAAAGCCCGATTGCCCCCGAGGAATTAGCACTTGTTCACAA CTTGAGGAAAATGATGAAAAATGATTGGCATGGAGGCGCCATTGTGTCGGCTTTGAGCCAGACTGGGTCTCTCTT CATCCTGGTTTCCAACTATAACCCAAAGGAATTTGAAAGTTGTATTCAGTATTATTTGGAAAACAATTGGCTTCA ACATGAGAAAGCTCCTACAGAAGAAGGGAAAAAAGAGCTGCTGTTCCTAAGTAACGCGAACCCCTCGCTGCTGGA CAGTAAGATGAGGAAGTCGGGCAGTACACAGGAAGAGGAGCCAGGCCCTTGTACCTATGGGATTGGACAGGACTG ${\tt CAGTTGGCTCTGGACCTGCATTAAAATGGGTTTCACTGTGAATGCGTGACAATAAGATATTCCCTTGTTCCTAAA}$ ACTTTATATCAGTTTATTGGATGTGGTTTTTCACATTTAAGATAATTATGGCTCTTTTCCTAAAAAATAAAATAT

MMLKGITRLISRIHKLDPGRFLHMGTQARQSIAAHLDNQVPVESPRAISRTNENDPAKHGDQHEGQHYNISPQDL ETVFPHGLPPRFVMQVKTFSEACLMVRKPALELLHYLKNTSFAYPAIRYLLYGEKGTGKTLSLCHVIHFCAKQDW LILHIPDAHLWVKNCRDLLQSSYNKQRFDQPLEASTWLKNFKTTNERFLNQIKVQEKYVWNKRESTEKGSPLGEV VEQGITRVRNATDAVGIVLKELKRQSSLGMFHLLVAVDGINALWGRTTLKREDKSPIAPEELALVHNLRKMMKND WHGGAIVSALSQTGSLFKPRKAYLPQELLGKEGFDALDPFIPILVSNYNPKEFESCIQYYLENNWLQHEKAPTEE GKKELLFLSNANPSLLERHCAYL

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TCTTCACCACTGCTCTCCCAGAGGTCCAGGTCCGGGAGATGACAGTGGCTCCCAGAAAGCCCAGGATTCAATCGC TGAGAGAGTGCTTAGGCCCGAATGCCGGCCCAAATCGTTCTACTCACCGTGTCGGAGGCCGAGAGCGATGAGAGT GGCAAACTGAGAGGAGGCGGATCCCGCAACCGACACTGGGATCGTTTCCCCTCGCAAAGCGAACCCAAAATGGCG CAACCTCCCACTCCTCCCTCGCGTTCTTCCCCACGGTCCCCCGCTTCGCCCGACTCCGGCCATGTAGCGCGC CTGCGAGCCAGCCATCCCGTACGCGCTCACCCACGGGAACCTCCTCGCCCAGTTCTCCACTCCCCTCAGACCCT GTCAAGCCGGCTCCAGCGCAGGCCCTCACGCGTACCTTCAGCGGCGCGAGCCCAAGCCTTCTCCACCTCCTCTTC CACTCCTCGCGCGTGCGCCTCCCACAGTCCCCACCGCGGGACTGTTCCATTCCTGGCGGCTGCAGGGGCAGGAGA ${\tt GGGCGGCCTAGCGCCCTCTGCCGGCCGGTGGTTGGAGGCCGCGGCGGCGGCGCGTTGAGTCGTTTCCTGCCGG} {\tt A}$ ${f TG}$ ACCCGACCCTTTTTTGCAGTCTCAGGACGGGCGCTTTGGAGCCGGCCCCAGGCAGCGTGTCTCGGTCGCCTAG TCTGGAGAACTAGTCCTCGACTCACGGTGAGGGAATGGACCGACACGGGTATTGTACCGCTGAGGGAAAGGAGCG GGACTCCGGACCTCCAGGAGGTAGGGAGTGAGGCCGGTAGACCGGCGCGCCTCCGGGGGGGATTCCTCCCGGGCG TTGAGTTGCCAACCTGGGACCCGAGGAAGTTCGGCGTGGTGGTGGTGTTTTTTGTTGTTAACCCTCCTCGGAT $\tt TTCTCGAATTTCACACCACTGTCCATATGCGA\underline{TGA} \tt TGTTTGTTTGCCCTTGACGCACTTACTCATGGATGGTACT$ TCAGCCTCGTTAGACAGCCTGGTGATGGAGGATGAAGAAACCATGTGCTTCTCATTCAGTTCTGGACTCAGTTTC CCTTGTCTTCAGCAAGTTATTTTTGTTAGTTCCTTATCAAAAAGTGTACATAAAAATTAGGCAACTCCAAACATG CCTCCAGGGTTGGTGTGAAATAATAAGATAGGGCTGGGCGGGGGGGCTCACGCCTGTAATCCCAGCACTTTGG GAGGCCGAGGCAGGTGGATGACAAGGTGAAGAGATCGAGACAATCCTGGCCAACATGGTGAAACCCCGTCTCTAC TAAAAATACAAATATTAGCCGGCCGTGGTGGCGGGCGCCTGTAGCCCCAGCTACTCGGGAGGCTGAGGCAGAGA ATTGCTTGAACCCGGGCGGCGGAAGTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGCGACAAAGCG AGACTCCGTCACACACACACACACACACACACACAAAATAATAATATATGTAAAGTGGAATTAGCTCCAAGTCGTTAAT AAAACAAAGCAGGCCGGGCGTCTTGTTAAATAGTTGTATCAATGACTTGATTTAGATTAATGAGGATATATTTTT TCTCAGCACTTTGGGAGGCGGAGGAGGGCGCATTGCTTGAGCCTAGGAGTTCGAGACCAGCTTAGGCAACACGGT GAAACCCCATCTCTACAAAAAGACACAAAAATTAGACAGGTGTGGCACACGCTTGTAGTCTGAGCTACTTGGGAG GCTGAAGCAGGAGGATTGAGGAAGAGGTTGCAAAGTTAGCCGAGATCACGCCATCACACTGCAGCCTAGGTGACA GAGCGAGACCCTGTCTCAAAAAAGAAAGAAGACATTAGCAGAAAAGCTGAGGAAATGCAAATAAAGTCTGCAAT TTTTAAAT

MTRPFFAVSGRALWSRPQAACVGRLVWRTSPRLTVREWTDTGIVPLRERSGTPDLQEVGSEAGRPARLRGGFLPG VELPTWDPRKFGVVVCFLLLLTLLGFLEFHTTVHMR

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GAGAGAAGAGGAGGTGGAGAAGGCTTGGGCTCGCGCCGCTGAAGTCGGCTTACCCGCTGGCCGCCTCCTGACAAG $\tt CGGGAGGGATCCGCGGTGGACCCAGGGAAGCGGAGGAGCCTGGCGGCCACCCCCTCTTCCTCACTTCCTGTACT$ CTCATCGCTCTCGGCCTCCGACACGAAAAGGAAGCAAATGAGCTGATGGAAGATCTGTTTGAAACTAGACAGGGT CTTGCCATGTTCTGGAACTCATAGGCTCAAGTAATCTTCCTGCCTCAACCTCCCAAAGTGCTGGAATTACAGTTC AACTTTAACACCCCTCAAGCTCTACGGTTTGAGGAACTACTGGCCAACCTACTAAATGAACAACATCAGATAGCG AAGGAACTATTTGAACAGCTGAAGATGAAGAAACCTTCAGCCAAACAGCAGAAGGAGGTAGAGAAGGTTAAACCC CAGTGTAAGGAAGTTCATCAGACCCTGATTCTGGACCCAGCACAAAGGAAGACTCCAGCAGCAGATGCAGCAG CATGTTCAGCTCTTGACACAAATCCACCTTCTTGCCACCTGCAACCCCAATCTCAATCCGGAGGCCAGTAGCACC AGGATATGTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAACCCCAAGTTT CAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCAGCTGATTGAAGACTTCAGCACATGTCAGCATT GACTGCAGCCCTCATAAAACTGTCAAGAAGACTGCCAATGAATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATC CTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGAT AAGATCCTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGGACTGAGTTTCTT AACCCTCTAATCAGCAAGTACCTTCTAACCTGCAAGACTGCCCGCCAACTGACAGTGAGAATCAAGAACCTCAAC ATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGAAAATGCTGT GAAGAGATCCAGCCACATCAGTGGAAGCCACCTATAGAGAGAAGAACACCGGCTCCCATTCTGGTTAAAGGCC AGTCTGCCATCCAGGAAGAACTGCGGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATGACTGGAACC ACTGAGATCAACTCAGATCAAGGCCTAGAAAAAGACAACTCAGAGTTGGGGAGTGAAACTCGGTACCCACTGCTA TTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCGACCGTTTCCCCAAGAAGGCTTGGAGACAGAAGCGT TCATCAGTCCTGAAACCCCTCCTTATCCAACCCAGCCCCTCTCTCCAGCCCAGCTTCAACCCTGGGAAAACACCA GTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTG CCCAAGGTAATGATGCCCTCCCCTGCCTCTTCCATGTTTCGAAAGCCATATGTGAGACGGAGACCCTCAAAAAGA AGGGGAGCCAGGGCCTTTCGCTGTATCAAACCTGCCCCTGTTATCCACCCTGCATCTGTTATCTTCACTGTTCCT GCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCGGCTGTGGCCCAG GTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCCACCCCTGAAGAT AAGGCCCACATGAATGTGGACATTGCTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAA TTAGAGCCCCAGGAACTATCTCCTCTCTCTGCTACTGTTTTCCCCAAAGTGGAACATAGCCCAGGGCCTCCACCA GTCGATAAACAGTGCCAAGAAGGATTGTCAGAGAACAGTGCCTATCGCTGGACCGTTGTGAAAACAGAGGAGGGA AGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTCTCTAAACAACTCTTCCCCTGGGGATTTAGAGGAA GTTGTCAAGATGGAACCTGAAGATGCTACAGAGGAAATCAGTGGATTTCTT<u>TGA</u>GCTAGGAGAATAAGAGTCTGG AGACTGGGAGCCTTCACTTCGGCCTCCGATTGGTGGCGCATAGGGTGTAACCAATAGGAAACCCCTAAAGGGTAC ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MGFSNMEDDGPEEERVAEPQANFNTPQALRFEELLANLLNEQHQIAKELFEQLKMKKPSAKQQKEVEKVKPQCK
EVHQTLILDPAQRKRLQQQMQQHVQLLTQIHLLATCNPNLNPEASSTRICLKELGTFAQSSIALHHQYNPKFQTL
FQPCNLMGAMQLIEDFSTHVSIDCSPHKTVKKTANEFPCLPKQVAWILATSKVFMYPELLPVCSLKAKNPQDKIL
FTKAEDNLLALGLKHFEGTEFLNPLISKYLLTCKTARQLTVRIKNLNMNRAPDNIIKFYKKTKQLPVLGKCCEEI
QPHQWKPPIEREEHRLPFWLKASLPSIQEELRHMADGAREVGNMTGTTEINSDQGLEKDNSELGSETRYPLLLPK
GVVLKLKPVADRFPKKAWRQKRSSVLKPLLIQPSPSLQPSFNPGKTPAQSTHSEAPPSKMVLRIPHPIQPATVLQ
TVPGVPPLGVSGGESFESPAALPAMPPEARTSFPLSESQTLLSSAPVPKVMMPSPASSMFRKPYVRRPSKRRGA
RAFRCIKPAPVIHPASVIFTVPATTVKIVSLGGGCNMIQPVNAAVAQSPQTIPIATLLVNPTSFPCPLNQPLVAS
SVSPLIVSGNSVNLPIPSTPEDKAHMNVDIACAVADGENAFQGLEPKLEPQELSPLSATVFPKVEHSPGPPPVDK
QCQEGLSENSAYRWTVVKTEEGRQALEPLPQGIQESLNNSSPGDLEEVVKMEPEDATEEISGFL

AGCGCAGT<u>ATG</u>GCGGGCGGGGCCCGGGAGGTGCTCACACTGCAGTTGGGACATTTTGCCGGTTTCGTGGGCGCGC ACTGGTGGAACCAGCAGGATGCTGCGCTGGGCCGAGCGACCGATTCCAAGGAGCCCCCGGGAGAGCTGTGCCCCG ACGTCCTGTATCGTACGGCCGGACGCTGCACGGCCAGGAGACCTACACGCCGCGACTCATCCTCATGGATCTGA AGGGTAGTTTGAGCTCCCTAAAAGAGGAAGGTGGACTCTACAGGGACAAACAGTTGGATGCTGCAATAGCATGGC AGGGGAAGCTCACCACACAAAGAGGAACTCTATCCCAAGAACCCTTATCTCCAAGACTTTCTGAGTGCAGAGG GAGTGCTGAGTAGTGATGGTGTCTGGAGGGTCAAATCCATTCCCAATGGCAAAGGTTCCTCACCACTCCCCACCG CTACAACTCCAAAACCACTTATCCCTACAGAGGCCAGCATCAGGGTCTGGTCAGACTTCCTCAGAGTCCATCTCC ATCCCCGGAGCATCTGTATGATTCAGAAGTACAACCACGATGGGGAAGCAGGTCGGCTGGAGGCTTTTGGCCAAG GGGAAAGTGTCCTAAAGGAACCCAAGTACCAGGAAGAGCTGGÁGGACAGGCTGCATTTCTACGTGGAGGAATGTG ACTACTTGCAGGGCTTCCAGATCCTGTGTGACCTGCACGATGGCTTCTCTGGGGTAGGCGCGAAGGCGCAGAGC TGCTACAAGATGAATATTCAGGGCGGGGAATAATAACCTGGGGCCTGCTACCTGGTCCCTACCATCGTGGGGAGG CCCAGAGAAACATCTATCGTCTATTAAACACAGCTTTTGGTCTCGTGCACCTGACTGCTCACAGCTCTCTTGTCT GCCCCTTGTCCTTGGGTGGGAGCCTGGGCCTGCGACCCGAGCCACCTGTCAGCTTCCCTTACCTGCATTATGATG CCACTCTGCCCTTCCACTGCAGTGCCATCCTGGCTACAGCCCTGGACACAGTCACTGTTCCTTATCGCCTGTGTT CCTCTCCAGTTTCCATGGTTCATCTGGCTGACATGCTGAGCTTCTGTGGGAAAAAGGTGGTGACAGCAGGAGCAA TCATCCCTTTCCCCTTGGCTCCAGGCCAGTCCCTTCCTGATTCCCTGGTGCAGTTTTGGAGGAGCCACCCCATGGA AAATCTTGGCTCAGTATTTACAACAGCAGCCTGGAGTCATGAGTTCTTCCCATCTGCTGCTGACTCCCTGCA GGGTGGCTCCTCCTTACCCCCACCTCTTCTCAAGCTGCAGTCCACCGGGTATGGTTCTGGATGGTTCCCCCAAGG GAGCAGCAGTGGAGAGCATCCCAGTGTTTGGGGCACTGTGTTCCTCTTCGTCCCTGCACCAGACCCTGGAAGCCT TGGCCAGAGACCTCACCAAACTCGACTTGCGGCGCTGGGCCAGCTTCATGGATGCTGGAGTGGAGCACGATGACG ${\tt TAGCAGAGCTGCTGCAGGAGCTACAAAGCCTGGCCCAGTGCTACCAGGGTGGTGACAGCCTCGTGGAC\underline{{\tt TAA}}{\tt AGTT}$ CCCAGTGTGGGAGAAAGGAGCTAGTTTGCAATAAAAACAGCTGGATGCAGGAGCCCAGTGTCTTCATGCAGAGGA GCTCAATGTCGCGGGACTAGCTACACCAACATATGCACTTTTTACATTTAGAAACACTGTGATTAGACCACAGAA CAATAAATATGTGCCATCAGACC

MAGGAREVLTLQLGHFAGFVGAHWWNQQDAALGRATDSKEPPGELCPDVLYRTGRTLHGQETYTPRLILMDLKGS LSSLKEEGGLYRDKQLDAAIAWQGKLTTHKEELYPKNPYLQDFLSAEGVLSSDGVWRVKSIPNGKGSSPLPTATT PKPLIPTEASIRVWSDFLRVHLHPRSICMIQKYNHDGEAGRLEAFGQGESVLKEPKYQEELEDRLHFYVEECDYL QGFQILCDLHDGFSGVGAKAAELLQDEYSGRGIITWGLLPGPYHRGEAQRNIYRLNTAFGLVHLTAHSSLVCPL SLGGSLGLRPEPPVSFPYLHYDATLPFHCSAILATALDTVTVPYRLCSSPVSMVHLADMLSFCGKKVVTAGAIIP FPLAPGQSLPDSLVQFGGATPWTPLSACGEPSGTRCFAQSVVLRGIDRACHTSQLTPGTPPPSALHACTTGEEIL AQYLQQQQPGVMSSSHLLLTPCRVAPPYPHLFSSCSPPGMVLDGSPKGAAVESIPVFGALCSSSSLHQTLEALAR DLTKLDLRRWASFMDAGVEHDDVAELLQELQSLAQCYQGGDSLVD

AGGTGAGAGAGGATGTGTGCTGGGGCCTTGGAGGAAGGGGGCCCGAGACCGGGCCTTACTTCTGTAACGATACTGTG GGGTACCCAGTCCTGGCCTGGCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGC TCCTCCCTCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAGCAGGATTTCGTTCAGCACTTC TCCCAGATCGTTAGGGTGCTGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAG GAGGTCCTGGAGTACAATGCCATTGGAGGCAAGTATAACCGGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTG GTGGAGCCAAGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGGAACTGCTGCAA GCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAAG CCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTAT TGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAG ACCCTGGACCTCCTCACAGCCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAATCTATT GTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATGTACATGGCAGGAATTGATGGC GAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGGAGTTCTTTCAGATTCAGGATGATTACCTT GACCTCTTTGGGGACCCCAGTGTGACCGGCAAAATTGGCACTGACATCCAGGACAACAAATGCAGCTGGTG GTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAG AAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTCTTGCAATATGAGGAAGACAGT TACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCACCCCTGCCCCAGCCGTCTTTCTGGGGCTTGCGCGC ACCTT.

MPLSRWLRSVGVFLLPAPYWAPRERWLGSLRRPSLVHGYPVLAWHSARCWCQAWTEEPRALCSSLRMNGDQNSDV
YAQEKQDFVQHFSQIVRVLTEDEMGHPEIGDAIARLKEVLEYNAIGGKYNRGLTVVVAFRELVEPRKQDADSLQR
AWTVGWCVELLQAFFLVADDIMDSSLTRRGQICWYQKPGVGLDAINDANLLEACIYRLLKLYCREQPYYLNLIEL
FLQSSYQTEIGQTLDLLTAPQGNVDLVRFTEKRYKSIVKYKTAFYSFYLPIAAAMYMAGIDGEKEHANAKKILLE
MGEFFQIQDDYLDLFGDPSVTGKIGTDIQDNKCSWLVVQCLQRATPEQYQILKENYGQKEAEKVARVKALYEELD
LPAVFLQYEEDSYSHIMALIEQYAAPLPPAVFLGLARKIYKRK

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG GGCGAACTGAGGCGAGTGAAGTGGACTCTGAGGGCTACCGCTACCGCCACTGCTGCGGCAGGGGCGTGGAGGGCA ${\tt GAGGGCCGCGGAGGCCGCAGTTGCAAAC}$ ${\tt ATG}{\tt GCTCAGAGCAGAGACGGCGGAAACCCGTTCGCCGAGCCCAGCGA}$ GCTTGACAACCCCTTTCAGGACCCAGCTGTGATCCAGCACCGACCCAGCCGGCAGTATGCCACGCTTGACGTCTA CAACCCTTTTGAGACCCGGGAGCCACCACCAGCCTATGAGCCTCCAGCCCTGCCCCATTGCCTCCACCCTCAGC TCCCTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTC AGCTGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAG GGAGCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTT GGAAACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTG $\tt CGTCCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCT$ GGTGGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGGTCGCCCTGCTCTTCACTGGCATTGCTGT GCTAGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCA AGAATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGA ${\tt AAATGCCTTCCGGGCCCCG} \underline{{\tt TGA}} {\tt CCCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCCC}$ GTCCCTAAGGTCTCTGGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCC $\tt ATGACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCAC$

MAQSRDGGNPFAEPSELDNPFQDPAVIQHRPSRQYATLDVYNPFETREPPPAYEPPAPAPLPPPSAPSLQPSRKL SPTEPKNYGSYSTQASAAAATAELLKKQEELNRKAEELDRRERELQHAALGGTATRQNNWPPLPSFCPVQPCFFQ DISMEIPQEFQKTVSTMYYLWMCSTLALLLNFLACLASFCVETNNGAGFGLSILWVLLFTPCSFVCWYRPMYKAF RSDSSFNFFVFFFIFFVQDVLFVLQAIGIPGWGFSGWISALVVPKGNTAVSVLMLLVALLFTGIAVLGIVMLKRI HSLYRRTGASFQKAQQEFAAGVFSNPAVRTAAANAAAGAAENAFRAP

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG GCTTGACAACCCCTTTCAGCCACCACCAGCCTATGAGCCTCCAGCCCCTGCCCCATTGCCTCCACCCTCAGCTCC CTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTCAGC TGCAGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAGGGA GCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTTTTG TCCAGTTCAGCCCTGCTTTTTCCAGGACATCTCCATGGAGATCCCCCAAGAATTTCAGAAGACTGTATCCACCAT AACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTGCTG ${\tt CCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCTGGT}$ GGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGGTCGCCCCTGCTCTTCACTGGCATTGCTGTGCT AGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCAAGA ATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGAAAA $\tt TGCCTTCCGGGCCCCG\underline{TGA} \tt CCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCCGTC$ CCTAAGGTCTCTGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCCATG ACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCACCTC ACTGGAACTGAAAAAAAAAAAAAAA

MAQSRDGGNPFAEPSELDNPFQPPPAYEPPAPAPLPPPSAPSLQPSRKLSPTEPKNYGSYSTQASAAAATAELLK KQEELNRKAEELDRRERELQHAALGGTATRQNNWPPLPSFCPVQPCFFQDISMEIPQEFQKTVSTMYYLWMCSTL ALLLNFLACLASFCVETNNGAGFGLSILWVLLFTPCSFVCWYRPMYKAFRSDSSFNFFVFFFIFFVQDVLFVLQA IGIPGWGFSGWISALVVPKGNTAVSVLMLLVALLFTGIAVLGIVMLKRIHSLYRRTGASFQKAQQEFAAGVFSNP AVRTAAANAAAGAAENAFRAP

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CCTGCGGCAGCCGGAGCTCGGGGAGCGGAGCGTGGTGGGGGAGGGGGAGCAGGCGACACAGGAGACAGCGGC TCACCCCACGCCGACCCCTCCCCTCTTCTCTAGACTTATTTCCATCCTTCCCGCTTTTACCCTCCCCACCCGTCC ACCCAGCCAGGGGGTGGGCTCTAGAGCGAGTGGGGTGGAGAGAAAGGACGGGGCCTTGGGGGCCTCTGAGAT CCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACCTCCGCCTCCACCGACCCTGGCTGCAGG ${\tt CCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCCTGGGCATCCTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCG}$ GCATTGTGTCCTGGAAGCGGCCATTCACTCTAGTGATCTCCTTCTTCTCCTTGCTTTCGGTGCTCTTGTCATGC TTAGCATGGCTGGCTCTGTTCTCTCTGTAAGAATGCTCAACTGGCCCGAGACTTCCAACAGTGCTCTCTGGAAG GAAAGGTCTGTGTGTGCCTCTCTGTTCCCCTCCTCCGGCCCTGTCCAGAGTCGGGGCAGGAACTGAAAGTTG $\tt CCCCTAACTCCACCTGTGATGAAGCCCGAGGGGCCCTCAAGAACCTGCTCTTCAGCGTCTGTGGGCTCACCATTT$ GTGCCGCTATAATCTGTACACTCTCTGCTATTGTCTGCTGCATCCAAATCTTCTCCCTGGACCTCGTGCATACGC AGCTGGCCCCTGAGCGGTCAGTCTCAGGCCCACTGGGACCTCTGGGCTGCACGTCCCCGCCCCCAGCCCCTCTCC TACACACCATGCTGGACCTGGAGGAATTTGTCCCGCCTGTGCCCCCACCGCCCTACTATCCCCCAGAGTATACCT GCAGCTCAGAAACAGATGCACAGAGCATCACGTACAATGGCTCCATGGACAGCCCAGTGCCCTTGTACCCTACCG ATTGCCCCCCTTCTTATGAGGCAGTCATGGGACTACGAGGAGACAGCCAGGCCACTCTCTTTGACCCTCAGCTTC ACGATGGCTCGTGCATCTGTGAACGAGTGGCCTCCATTGTAGACGTGTCCATGGACAGCGGGTCTCTGGTGCTGT CAGCCATTGGTGACCTCCCTGGGGGCTCTAGCCCGTCGGAGGACTCGTGCCTGCTGGAGCTGCAGGGCTCCGTGC GCTCCGTGGACTACGTTCTCTTTCGCTCCATCCAGCGCAGCCGTGCCGGCTACTGCCTCAGCCTGGACTGTGGCC TGCGGGGCCCCTTCGAGGAAAGCCCCCTGCCACGGCGCCCCCCACGGGCTGCCCGCTCCTATTCCTGCTCTGCCC CTGAAGCTCCACCCCACTGGGTGCCCCCACAGCTGCCCGCAGCTGCCACCGGTTGGAGGGCTGGCCGCCCTGGG TGGGACCCTGCTTCCCCGAGCTGAGGCGGCGGGTCCCCCGGGGAGGGGGCCCCCAGCCGCAGCCCCACCC GAGCCCCGACTCGTCGCTTCAGCGATAGCTCAGGTTCCCTCACCCCACCGGGGCACCGGCCTCCTCATCCGGCAT GGGACCTTTATACCAAAGTGCTTGAGGAAGAAGCTGCTTCTGTTTCCTCTGCAGATACAGGGCTCTGCTCTGAAG $\tt CCTGCCTCTTCCGCCTAGCCCGCTGCCCTTCCCCCAAGTTGCTACGTGCCCGGTCAGCCGAGAAACGGCGCCCTG$ TGCCCACCTTCCAAAAAGTTCCCCTGCCCTCGGGCCCTGCACCTGCCCACTCCCTGGGGGACCTAAAGGGCAGCT GGCCAGGTCGGGGCCTGGTCACTCGTTTCCTCCAGATATCCAGGAAAGCCCCAGACCCCAGTGGGACTGGAGCTC ATGGACATAAGCAGGTGCCCGGAGCCTGTGGGGCCCGGCCTGGCCGAGAGAGCCTCCACCTTCGCAGCTGCGGAG ATCTGAGCTCTAGCTCTTCCCTGCGGCGTCTCCTGTCTGGCCGCAGGCTGGAGCGTGGTACCCGCCCCACAGCC CTTCTGTCCTGTGCTGCATGGGTATTTAGACTGTGGGGGGAGATGCCCCTTCTTATAGCACTGGAGGAGAAAACA AATTCTTGTCCCCCTCAGAATGAGAGTGGCTCTTTCTGATTTGCAAGGGCACTATGGTCAGGGCAAAGGCATGGC TAGGTGGCCTCTCAGCTCTGCCACCTCTAGCTGCATGACCTTGGGCAAGCTATGTAACCCCAATTGCCTGCTCCA TTAAAGACTGTGAAGGTAGAATGTTTGTAAAGCTCTTAACAGTATGTAAGCCTTCAATAAATTTCAGTTTTCCCC

MMPSPSDSSRSLTSRPSTRGLTHLRLHRPWLQALLTLGLVQVLLGILVVTFSMVASSVTTTESIKRSCPSWAGFS
LAFSGVVGIVSWKRPFTLVISFFSLLSVLCVMLSMAGSVLSCKNAQLARDFQQCSLEGKVCVCCPSVPLLRPCPE
SGQELKVAPNSTCDEARGALKNLLFSVCGLTICAAIICTLSAIVCCIQIFSLDLVHTQLAPERSVSGPLGPLGCT
SPPPAPLLHTMLDLEEFVPPVPPPPYYPPEYTCSSETDAQSITYNGSMDSPVPLYPTDCPPSYEAVMGLRGDSQA
TLFDPQLHDGSCICERVASIVDVSMDSGSLVLSAIGDLPGGSSPSEDSCLLELQGSVRSVDYVLFRSIQRSRAGY
CLSLDCGLRGPFEESPLPRRPPRAARSYSCSAPEAPPPLGAPTAARSCHRLEGWPPWVGPCFPELRRRVPRGGGR
PAAAPPTRAPTRRFSDSSGSLTPPGHRPPHPASPPPLLLPRSHSDPGITTSSDTADFRDLYTKVLEEEAASVSSA
DTGLCSEACLFRLARCPSPKLLRARSAEKRRPVPTFQKVPLPSGPAPAHSLGDLKGSWPGRGLVTRFLQISRKAP
DPSGTGAHGHKQVPRSLWGRPGRESLHLRSCGDLSSSSSLRRLLSGRRLERGTRPHSLSLNGGSRETGL

CAGTGCCCCACAGCTCTTCAGGCCCTTCCTGTGCCTGGCTGCCCTCCCACCCTACCCTTTTGTACCTCTGAGAAG GCTCTGGCCCCACGCACAGCCCCACTGTCACCAGGGCCAGTATCTGTCTCAGGGACCTCCTATCCAGAGCCTGAG CCAGCCCCAGCCCCAGCTCCAGCTGCTCCATCTGAACCTGTATCTTCTTCCAAGCCACCCATTACCCTC TTGGAGTCAGACTCACGCATCTCCAAAGAAGAACTTTTGAGAGCCCAGGCGCTGAGAGAGCAGGGTCAGACACTC CCGAGCCTCTCGGTACAGCTGTAGGGGCGACACAGGTAGGCTTGCAGCTGCGGGAACAGTGCCACCTCCGCACCT AAGCACTCCCATTCCTGGCCAGCATCCTTGGGGCTCATCTCATACAATAGCCCCCGGTCTCAGAGCTACCTCCTT CTCCAGCTCTTCCTCGTCCTCAGGCCTGTGCTCCCCAGTCAGCAGCTGTAGCCGTTCCATGTACTGCCGCTGCAT GCGGCCAGGCAGGAAGAAGTTGAGGGGAAAGGGCATAGCCTCTGCATACCACTTCCGGGTCACTTCTACGTAGTT TGTCTGATTCAAGGTGGGCTTCTGACCTCCATGCTCTCCTGAGTCTCTGTGTGGGTCTGTGTGTTCCCGTCCCCT CCCCGGCTGGCCATGGATGCTGGGAGGTCTGGGCACACTCACCAGCACCGGGATCAACTTCTCCTCCAGGAGAGA CATGAAGGCCAGGGTGTCTGCCCCTTGCTGAGCTGACAGATCATAATCAGCATTGTACTTCTGTGGAGGAAATAT CCTGTTGCTGTTGGCAAAAAGCCTGGGCCTTGGAGCCCGCTGGCCGTCAAGGTCCTGGGCCCATTGAGAAGAAGG $AAGAAAGGTTGGGCCGCAAACTAGGAGCAGCTCCCAGAATTTCCATGGAAAGCTGGAACAATGCCTGC\underline{TGA}CAGC$ AACTTTCTAACAGTAACTTTCCCGACCCAGACACCACAAAGCTAGCACAACGGAGCTCAGATGCAGGCTAGGACT CGGTCCATGCCTCAGGAACCAGGGAAAGCCATCCTCACACTCCCTGGATCCAGGGAACCCACGCCCAGGGCCCCC ACACATTCCATCCATACCCCCAGGTCTCAGCCTGCCCTACCTTCCCAGGCTCCAGTCCCTGTTCCTCAGCATCCC CCACCACATCCTGAGTAAGCTTTGTCCCCAGATAACCTCTTCAGCATGATCCTTAAATCTCCCTAAGCCTCAGTT TCTCCCCTGTGGAATGGGGGTAAGAATCTCTTTCTCTGAATGCCCCTGTGTTAGGAAATAATTTAGAATACTTCG GAAACAAAAAGCTCTGTTCACACCTAAGCAATCAGGGCAGTGGCCCTGGCCTTGCCAGGAACTTAGGCTTTTATC TGGATCCTCTTTCCAGGCCTCTCAATTAATTCCCCAGGTCCTTAACCTTTGGGAAATTAGAAATTAGGAAGAGTG TCCCACTTCTGACACTGTGTTCCCTCTTGGAACCTGACCGTCAATGCTAGAAGAACCCTTGGAAAACATGCTGGC CCAGCCCTCTAGTTTTACAAATAAGGGAGTGCACAGCCCTGAGAGGTTACATGGCCTGCCCAAGATCACGCAGTC AATGGCAGAGTAAAGAGCATAGCCTAGGCCTCCCCACTCCTCTAGTAATGCTCTTTCATCTTCTCCAACCTGGCT CTAAGCCTTGTCCATCCTGAGCCCCATATCTAGCCCAACCTAGTCCCTGAAAACAAGAAGTGGCCCTTAGAAATC CTGACAGGCAGAAGGTACCGTGCCTCTGGATATCCCCACAGTGCCCTGAGCTGCATCTCTTGCCGACTGCTTTAA TACATCACAGTGACATTGTGTGTGTCTCTGCCACCAGACTATTGCTCCTTGATGCTCTGGGTCACCTGCATCTAG CATGGCATATATCTAGTGCTCAATAAATGTGTATTGTACGG

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 ${\tt MAWTLGSCKGTSPGRKESCLVPPSLASECSGGTARNFSCQGPLAWAQPVACCCWQKAWALEPAGRQGPGPIEKKE} \\ {\tt ERLGRKLGAAPRISMESWNNAC}$

AAGCCCCAGCCCGGCCTCCGGCCGCCGCCACCGCCCTGTTTTGTTTCCATGGCGACAGGCGGCGCAGGG CCCGCTCCAAACATAACGCGCTGTGGAAAACATGCTGCTCGGGGGACCCCCCCGCAGTCCCCGCTCGGGGACGAG CCCCAAGGGGCCCTGGAGCAGTACAGGCCACGTGCAGTTTGGCAAGAGCCCCCAGACCTGGCCCAGGCGCACAAG ACCCCGCTCTCCAGAGCCTGCCGCGCCTTCAAGGGTTCGGGGCTCCACTTGGACGAGGCGCCGTGACTCTCCGAG CCGCGGCCCAGTCCCCGCAGTTCAGCTGCCAGTCGGGCCAGAAGAAGCCTCGCCTCCCCGGGGATCTCCCCAGG AGTGTTTCCGGGACAGAGGGTGGGCAAGATGGCGGCGCCCATGGAGCTGTTCTGCTGGTCAGGGGGCTGGGGGCT GCCGTCAGTGGACCTGGACAGCCTGGCCGTGCTGACCTATGCCAGATTTACTGGTGCTCCACTGAAGGTACACAA GATCAGCAACCCCTGGCAGAGCCCTTCAGGAACTCTGCCTTCCGGACCAGTCATGGAGAGGTCATCTCAGT TCCACACAAGATCATCACCCACCTTCGAAAAGAGGTACATACTTTTTGGATAGACACCAAGAACTACGTGGAAGT CATGGAACGGCTACAGCTGCTGACTGGGGAGCACAGGCCTGAGGACGAGGAAGAGCTGGAGAAGGAGCTGTACCG AGAGGCTCGGGAGTGTCTGACCCTGCTCTCTCAGCGCCTGGGCTCTCAAAAGTTCTTCTTTGGAGATGCCCCTGC CTCCTTGGACGCCTTCGTCTTCAGCTACTTGGCCCTGCTGCTGCAGGCAAAGCTGCCCAGTGGGAAGCTGCAGGT CCACCTGCGTGGGCTGCACAACCTCTGTGCCTATTGTACCCACATTCTCAGTCTCTACTTCCCCTGGGATGGAGC GGCAACGCCTGCTCGTGGCCCCAGGCACCCGGACCCTGGGCATGGCTGAGGAGGATGAAGAGGAATGATTTGTCC TCACGCTCCCAAGACTGGTTTTTCTACTCTCATGCATTCCAGAGGCCCCCGTGCCTCCTCGTTGTTGGTACAGCC GGACACGGGGTGTGCCACCCAGAATAAAGCCACTCACACTG

GCCGGAAGCCCCGGAGACCATGTAGTGAGACCCTCGCGAGGTCTGAGAGTCACTGGAGCTACCAGAAGCATCAT GGGGCCCTGGGGAGAGCCAGAGCTCCTGGTGTGGCGCCCCGAGGCGGTAGCTTCAGAGCCTCCAGTGCCTGTGGG GCTGGAGGTGAAGTTGGGGGCCCTGGTGCTGCTGCTGGTGCTCACCCTCTCTGCAGCCTGGTGCCCATCTGTGT GCTGCGCCGGCCAGGAGCTAACCATGAAGGCTCAGCTTCCCGCCAGAAAGCCCTGAGCCTAGTAAGCTGTTTCGC AGCCTTGCACGTGACGCTCCAGTTCCCACTGCAAGAGTTCATCCTGGCCATGGGCTTCTTCCTGGTCCTGGTGAT GGAGCAGATCACACTGGCTTACAAGGAGCAGTCAGGGCCGTCACCTCTGGAGGAAACAAGGGCTCTGCTGGGAAC AGTGAATGGTGGGCCGCAGCATTGGCATGATGGGCCAGGGGTCCCACAGGCGAGTGGAGCCCCAGCAACCCCCTC AGCCTTGCGTGCCTGTGTACTGGTGTTCTCCCTGGCCCTCCACTCCGTGTTCGAGGGGCTGGCGGTAGGGCTGCA GCGAGACCGGGCTCGGGCCATGGAGCTGTGCCTGGCTTTGCTGCTCCACAAGGGCATCCTGGCTGTCAGCCTGTC TCTAGGCATCGGCTGGGTGCAGCTCTGGCAGAGTCGGCAGGACCTCTGCACCAGCTGGCCCAGTCTGTGCTAGA GGGCATGGCAGCTGGCACCTTTCTCTATATCACCTTTCTGGAAATCCTGCCCCAGGAGCTGGCCAGTTCTGAGCA AAGGATCCTCAAGGTCATTCTGCTCCTAGCAGGCTTTGCCCTGCTCACTGGCCTGCTCTTCATCCAAATCTAGGG TAGGAAGGAAAGGGAAGGGAAATACTGAGGACCAAAAAGTTCTCTGGGAGCTAAAGATAGAGCCTTTGGGGCTA TCTGACTAATGAGAGGGAAGTGGGCAGACAAGAGGCTGGCCCCAGTCCCAAGGAACAAGAGATGGTCAAGTCGCT AGAGACATATCAGGGGACATTAGGATTGGGGAAGACACTTGACTGCTAGAATCAGAGGTTGGACACTATACATAA GGACAGGCTCACATGGGAGGCTGGAGGTGGGTACCCAGCTGCTGTGGAACGGGTATGGACAGGTCATAAACCTAG AGTCAGTGTCCTGTTGGTCCTAGCCCATTTCAGCACCCTGCCACTTGGAGTGGACCCCTCCTACTCTTCTTAGCG CCTACCCTCATACCTATCTCCCTCCCATCTCCTAGGGGACTGGCGCCAAATGGTCTCTCCCTGCCAATTTTG TGTACCCTAGGAATATGGGGACATGGACATGGTGTCCCATGCCCAGATGATAAACACTGAGCTGCCAAAACATTT GTGCATAGGGACATATTCTTTAGAATCTATTTTATTAACTGACCTGTTTTGGGACCTGTTACCCAAATAAAAGAT **GTTTCTAG**

 ${\tt AGAAAGAAAAGGTGTAGTGTTTGGGGAGGTCAACGGGCTATGCTGGCTTGACAGGGCTGGGCTCTTCAGAACAGA}$ GTCCTGGAGCTGGGACTCCACTGCCCCCCTCCAGAGGTTCCGGTAACTAGGCTACAGGAACAGGGACTGCAAGGC TGGAAGTCCGGTGGGGACCGTGGCCTTCAAGAGAGTGAGCCTGAAGATTTCTTGAAGCTTTTCATTGAT ${\tt CCCAATGAGGTGTACTGCTCAGAAGCATCTCCTGGCAGTGACAGTGGCATCTCTGAGGACCCCTGCCATCCAGAC}$ AGTCCCCCTGCCCCAGGGCAACCAGTTCTCCTATGCTCTATGAGGTTGTCTATGAGGCAGGGGCCCTGGAGAGG ${\tt CCTGATTCCTGCATGGTCAGTGAGCTGCCCTTTGATGCTCATGCCCACATCCTGCCCAGAGCAGGCACCGTAGCC}$ CCAGTGCCCTGTACAACCCTGCTGCCCTGTCAAACCCTGTTCCTGACCGATGAGGAGAAGCGTCTGCTGGGGCAG ATCCGTAACAAGCAGTCAGCTCAGGACAGTCGGCGGCGGAAGAAGGAGTACATTGATGGGCTGGAGAGCAGGGTG GCAGCCTGTTCTGCACAGAACCAAGAATTACAGAAAAAAGTCCAGGAGCTGGAGAGGCACAACATCTCCTTGGTA GCTCAGCTCCGCCAGCTGCAGACGCTAATTGCTCAAACTTCCAACAAAGCTGCCCAGACCAGCACTTGTGTTTTTG GAGGATTACCAGCCTCACGGAGTGACTTCCAGAAATATCCTGACCCACAAGGACGTAACAGAAAATCTGGAGACC CAAGTGGTAGAGTCCAGACTGAGGGAGCCACCTGGAGCCAAGGATGCAAATGGCTCAACAAGGACACTGCTTGAG GACCTTCCTGGCCCACTTCCTGATCACAAGGAATCCTGGGCTTCCTTATGGCTTTGCTTCCCACTGGGATTCCTA $\tt CTTAGGTGTCTGCCCTCAGGGGTCCAAATCACTTCAGGACACCCCAAGAGATGTCCTTTAGTCTCTGCCTGAGGC$ CTAGTCTGCATTTGTTTGCATATATGAGAGGGTACCTCAAATACTTCTGTTATGTATCTGTGATTTTATTTCTTC

MDLGIPDLLDAWLEPPEDIFSTGSVLELGLHCPPPEVPVTRLQEQGLQGWKSGGDRGCGLQESEPEDFLKLFIDP NEVYCSEASPGSDSGISEDPCHPDSPPAPRATSSPMLYEVVYEAGALERMQGETGPNVGLISIQLDQWSPAFMVP DSCMVSELPFDAHAHILPRAGTVAPVPCTTLLPCQTLFLTDEEKRLLGQEGVSLPSHLPLTKAEERVLKKVRRKI RNKQSAQDSRRRKKEYIDGLESRVAACSAQNQELQKKVQELERHNISLVAQLRQLQTLIAQTSNKAAQTSTCVLI LLFSLALIILPSFSPFQSRPEAGSEDYQPHGVTSRNILTHKDVTENLETQVVESRLREPPGAKDANGSTRTLLEK MGGKPRPSGRIRSVLHADEM

467/6881 FIGURE 436

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MLAGAGRPGLPQGRHLCWLLCAFTLKLCQAEAPVQEEKLSASTSNLPCWLVEEFVVAEECSPCSNFRAKTTPECG PTGYVEKITCSSSKRNEFKSCRSALMEQRLFWKFEGAVVCVALIFACLVIIRQRQLDRKALEKVRKQIESI

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GAATTCGAGGATCCGGGTACCATGGGAGGAAAACTTCTTCCTGGCCTGGGCTCCGTGCCGCTCTGTTTGCCAACC $\tt GTCCAGTCCCGCCTACCAGTGCCGGGCGCTCCCCCACCCCTCCCCCGGCTCCCCCGGTGTCCGCC\underline{ATG}$ CTACGACCACCTCTTCAAGTTGCTGCTGATCGGGGGACTCGGGGGTGGGCAAGACTTGTCTGATCATTCGCTTTGC ${\tt AGAGGACAACTTCAACAACACTTACATCTCCACCATCGGAATTGATTTCAAGATCCGCACTGTGGATATAGAGGG}$ GAAGAAGATCAAACTACAAGTCTGGGACACGGCTGGCCAAGAGCGGTTCAAGACAATAACTACTGCCTACTACCG TGGAGCCATGGGCATTATCCTAGTATACGACATCACGGATGAGAAATCTTTCGAGAATATTCAGAACTGGATGAA GAAGGTGCAGAAGGAGCCGATAAGTTGGCTCGAGAGCATGGAATCCGATTTTTCGAAACTAGTGCTAAATC CAGTATGAATGTGGATGAGGCTTTTAGTTCCCTGGCCCGGGACATCTTGCTCAAGTCAGGAGGCCGGAGATCAGG AAACGGCAACAAGCCTCCCAGTACTGACCTGAAAACTTGTGACAAGAAGAACACCAACAAGTGCTCCCTGGGC**TG** <u>A</u>GGACCCTTTCTTGCCTCCCCACCCGGAAGCTGAACCTGAGGGAGACAACGGCAGAGGGAGTGAGCAGGGGAGA AATAGCAGAGGGCTTGGAGGGTCACATAGGTAGATGGTAAAGAGAATGAGGAAAAAGGGAAAAAGGGAAAAAG GGTAGGAAGAGGGGGGGAGGAAGGAAGGAGAGAGATGCCTCAGGCTTCAGACCTTACCTGGGTTTTCAGGGCA AACATAAATGTAAATACACTGATTTATTCTGTTACTAGATCAGGTTTTAGGGTCCTGCAAAAGGCTAGCTCGGCA AAAAAAAAAAACCATGGTACCCGGATCCTCGAATTC

 $\label{thm:makaydhlfkllligdsgvgktcliirfaednfnntyistigidfkirtvdiegkkiklqvwdtagqerfktitt \\ ayyrgamgiilvyditdeksfeniqnwmksikenasagverlllgnkcdmeakrkvqkeqadklarehgirffet \\ sakssmnvdeafsslardillksggrrsgngnkppstdlktcdkkntnkcslg$

 ${\tt MPLAKDLLHPSPEEEKRKHKKKRLVQSPNSYFMDVKCPGCYKITTVFSHAQTVVLCVGCSTVLCQPTGGKARLTE} \\ {\tt GCSFRRKQH}$

ACTCAGGCAGCCCCTTCTTTCTTGCCCCAGTCTCCAGTTCTCCAGTGTTCACAGGTGAGCCTACCAACAGCC AGAGCAAGCTGAAGCTGAGCAGAAGCAGGCAGAAGAAGAAGAAGCAGCTGGAGGATGAGCTGGCAGCCATGCA GAAGAAGCTGAAAGGGACAGAGGATGAGCTGGACAAGTATTCTGAAGCTTTGAAGGATGCCCAGGAGAAGCTGGA ACTGGCAGAGAAGAAGGCTGCTGATGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGA AGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGATGA GAGTGAGAGGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCA ACTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCAT GAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGA GGAAGAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTAGC CAAGCTGGAAAAGACAATTGATGACCTGGAAGATGAGCTCTATGCCCAGAAACTGAAGTACAAGGCCATTAGCGA ${\tt GGAGCTGGACCACGCCCTCAATGACATGACCTCTATA} {\color{red}{\textbf{TAA}}} {\color{blue}{\textbf{TTATCACCGTTTCTGCTCTGTTCTGGATCTGCCCC}}$ CATTAGGATGGGGGAGCAAAAAGCAACTTATGTATTTTCTTCCACCCCCACCCCAAATTAAAATGTTAAGCTGCT GGA

MMEAIKKKMQMLKLDKENALDRAEQAEAEQKQAEERSKQLEDELAAMQKKLKGTEDELDKYSEALKDAQEKLELA EKKAADAEAEVASLNRRIQLVEEELDRAQERLATALQKLEEAEKAADESERGMKVIENRALKDEEKMELQEIQLK EAKHIAEEADRKYEEVARKLVIIEGDLERTEERAELAESKCSELEEELKNVTNNLKSLEAQAEKYSQKEDKYEEE IKILTDKLKEAETRAEFAERSVAKLEKTIDDLEDELYAQKLKYKAISEELDHALNDMTSI

CTGGCTTGGTCTTCCCCCGTAAGGAAATGGCCGGGGAGCTCCAGGGGACCCAGGCGCCGTCGCTTCGGCGGAGCT ${\tt GGGCTGACCAGCCAGGACAGCGGGGTAAACCCGAACAATTCTGCGCGAGGTAGGGAGGCC} \underline{{\tt ATG}} {\tt GCGTCCGGCAGT}$ AACTGGCTCTCCGGGGTGAATGTCGTGCTGGTGATGGCCTACGGGAGCCTGGACTTGAAAGAGGAGATTGATATT CGACTCTCCAGGGTTCAGGATATCAAGTATGAGCCCCAGCTCCTTGCAGATGATGATGCTAGACTACTACAACTG GAAACCCAGGGAAATCAAAGTTGCTACAACTATCTGTATAGGATGAAAGCTCTGGATGCCATTCGTACCTCTGAG ATCCCATTTCATTCTGAAGGCCGGCATCCCCGTTCCTTAATGGGCAAGAATTTCCGCTCCTACCTGCTGGATCTG CGAAACACTAGTACGCCTTTCAAGGGTGTACGCAAAGCACTCATTGATACCCTTTTGGATGGCTATGAAACAGCC GTTAAAGCACGAATTGGGAGCTCTCAGCGACATCACCAGTCAGCAGCCAAAGACCTAACTCAGTCCCCTGAGGTC TCCCCAACAACCATCCAGGTGACATACCTCCCCTCCAGTCAGAAGAGTAAACGTGCCAAGCACTTCCTTGAATTG $\mathtt{AAGAGCTTTAAGGATAACTATAACACATTGGAGAGTACTCTG}$ GCCAGTCAGTTGCAATGTGCAAGACAGGCTGCTTGCCGGGCCGCCCTCGGAACATCTGGCCCAGCAGGCCCAGAC TGTATCCATCCAAGTTCCCGTTGTATCCAGAGTTCTTAGAGCTTGTGTCTAAAGGGTAATTCCCCAACCCTTCCT TATGAGCATTTTTAGAACATTGGCTAAGACTATTTTCCCCCCAGTAGCGCTTTTTTCTGGATTTGCATTCGGGTGT TATTCTTAATGTTTCTGTCAAAGCTTCTTAAAAATCTTCACTTGGTTTCAGCCATAGTTCACCTTCCCTGTTCCA GGTTTATTTAATTCCAAAGGTGAGAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAGTTGAATGG GAACTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACTGGTGGGAGGTCAAGTGG GGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGC AAGGATCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTG CCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAGCCCAATGCACTGGTCTGACTTTATAAATTATT

 ${\tt MASGSNWLSGVNVVLVMAYGSLDLKEEIDIRLSRVQDIKYEPQLLADDDARLLQLETQGNQSCYNYLYRMKALDAIRTSEIPFHSEGRHPRSLMGKNFRSYLLDLRNTSTPFKGVRKALIDTLLDGYETARYGTGVFGQNEYLRYQEALSELATAVKARIGSSQRHHQSAAKDLTQSPEVSPTTIQVTYLPSSQKSKRAKHFLELKSFKDNYNTLESTL$

CCCGACTAAGTGACTTAAACTCCCACCTACTCCTGGAATAAGGAGTCAAAGCCCGGATAGGCGCAGTATTCTACC TTGTAAATACTGTTATTTGTATATACTGTAAATGATGACATCGGTGGGCACTAACCGAGCCCGGGGAAACTGGGA ACAACCTCAAAACCAAAACCAGACACAGCACAAGCAGCGGCCACAGGCCACTGCAGAACAAATTAGACTTGCACA CCCAGACACGCATTCCTGGGAGATGGTCGGGAAGAAGAAGGGAGTCTCAGGCCAGAAGGATGGTGGCCAGACGGA ATCCAATGAGGAAGGCAAAGAAAATCGAGACCGGGACAGAGACTATAGTCGGCGACGTGGTGGGCCACCAAGACG GGGGAGAGGTGCCAGCCGTGGACGAGAGTTTCGAGGTCAGGAAAATGGATTGGATGGCACCAAGAGTGGAGGGCC CAATAGCAGCGGCAATACGTGGAACAACACTGGCCACTTTGAACCAGATGATGGGACGAGTGCATGGAGGACTGC AACAGAGGAGTGGGGGACTGAAGATTGGAATGAAGATCTTTCTGAGACCAAGATCTTCACTGCCTCTAATGTGTC TTCAGTGCCTCTGCCTGCGGAGAATGTGACAATCACTGCTGGTCAGAGAATTGACCTTGCTGCTGGGGGAA GACACCATCTACAATGGAGAATGATTCATCTAATCTGGATCCGTCTCAGGCTCCTTCTCTGGCCCAGCCTCTGGT GTTCAGTAATTCGAAGCAGACTGCCATATCACAGCCTGCTTCAGGGAACACATTTTCTCATCACAGTATGGTGAG CATGTTAGGGAAAGGATTTGGTGATGTCGGTGAAGCTAAAGGCGGCAGTACTACAGGCTCCCAGTTCTTGGAGCA ATTCAAGACTGCCCAAGCCCTGGCTCAGTTGGCAGCTCAGCATTCTCAGTCTGGAAGCACCACCACCTCCTCTTG GGACATGGGCTCGACGACACAATCCCCATCACTGGTGCAGTATGATTTGAAGAACCCAAGTGATTCAGCAGTGCA CAGCCCCTTTACAAAGCGCCAGGCTTTTACCCCATCTTCAACCATGATGGAGGTGTTCCTTCAGGAGAAGTCACC TGCAGTGGCTACCTCCACAGCTGCACCTCCACCTCCGTCTTCTCCTCTGCCAAGCAAATCCACATCGGCTCCACA GATGTCGCCTGGATCTTCAGACAACCAGTCCTCTAGCCCTCAGCCGGCTCAGCAGAAACTGAAACAGCAGAAGAA AAAAGCCTCCTTGACTTCTAAGATTCCTGCTCTGGCTGTGGAGATGCCTGGCTCAGCAGATATCTCAGGGCTAAA CCTGCAGTTTGGGGCATTGCAGTTTGGGTCAGAGCCTGTCCTTTCTGATTATGAGTCCACCCCCACCACGAGCGC CTCTTCAAGCCAGGCTCCAAGTAGCCTGTATACCAGCACGGCCAGTGAATCATCCTCTACAATTTCATCTAACCA GAGTCAGGAGTCTGGTTATCAGAGCGGCCCAATTCAGTCGACAACCTATACCTCCCAAAATAATGCTCAGGGCCC TCTTTATGAACAGAGATCCACAGACTCGGCGGTACCCCAGCTCCATCTCTTCATCACCCCAAAAGGACCTGAC TCAGGCAAAGAATGGCTTCAGTTCTGTGCAGGCCACGCAGTTACAGACCACACAATCTGTTGAAGGTGCTACAGG CTCTGCAGTGAAATCTGATTCACCTTCCACTTCTAGCATCCCCCCTCTCAATGAAACGGTATCTGCAGCTTCCTT ACTGACGACAACCAATCAGCATTCATCCTCCTTGGGTGGCTTGAGCCACAGTGAGGAGATTCCAAATACTACCAC CACACAACACAGCAGCACGTTATCTACGCAGCAGAATACCCTTTCATCATCAACATCTTCTGGGCGCACTTCGAC ATCCACTCTTTTGCACACAAGTGTGGAGAGTGAGGCGAATCTCCATTCTTCCTCCAGCACTTTTTCCACCACATC CAGCACAGTCTCTGCACCTCCCCAGTGGTCAGTGTCTCCTCCAGTCTCAATAGTGGCAGTAGCCTGGGCCTCAG CCTAGGCAGCAACTCCACTGTCACAGCCTCGACTCGAAGCTCAGTTGCTACGACTTCAGGAAAAAGCTCCTCCCAA CCTCCCTCCTGGGGTCCCGCCGTTGTTGCCTAATCCGTATATTATGGCTCCAGGGCTGTTACATGCCTACCCGCC ACAAGTATATGGTTATGATGACTTGCAGATGCTTCAGACAAGATTTCCATTGGATTACTACAGCATCCCATTTCC CACACCCACTACTCCGCTGACTGGGAGGGATGGTAGCCTGGCCAGCAACCCTTATTCTGGTGACCTCACAAAGTT CGGCCGTGGGGATGCCTCCCCCAGCCCCGGCCACAACCTTGGCCCAACCCCAACAGAACCAGACGCAGACTCA CCATACCACGCAGCAGACATTCCTGAACCCGGCGCTGCCTCCTGGCTACAGTTACACCAGCCTGCCATACTATAC AGGGGTCCCGGGCCTCCCAGCACCTTCCAGTATGGGCCTGCTGTGTTCCCTGTGGCTCCTACCTCTTCCAAGCA GCATGGTGTGAATGTCAGTGTGAATGCATCGGCCACCCCTTTCCAACAGCCGAGTGGATATGGGTCTCATGGATA ${\tt CAACACTGGAAGAAAATATCCACCCCTTACAAGCATTTCTGGACGGCTGAGAGC\underline{{\tt TAA}}{\tt TTTGGCCCAAGGCTGGG}$ GGCTGTGTTTTGTGTGTGTGTATAAATTTGCACTGAAGTCTTGTTTCAGAAACCAGACCACTGAGGAGAGCCTGC TGAGCTGAGGCCATGGCCTGCGTGGCTTGGGGAAATGAGTTGGTGGATACCTTCTGGGCTTTTGAACTTGCCCCT CCCCCATTTCCCTCTCCCCCATGTGTCTGACCCTGTCTTACCCATTTCAAGTTCAAGCGGTGCAGCACCTTCGAA GCATCAATGCACACCTGCTGTTGCTTTTGATTTCTGGAAGGCATGTAGTTTCAACTTGTAACAAAAATATTTG TAGTCTTCAATAAACTGTGGTATTTCTTTAGCTAAC

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MMTSVGTNRARGNWEQPQNQNQTQHKQRPQATAEQIRLAQMISDHNDADFEEKVKQLIDITGKNQDECVIALHDC
NGDVNRAINVLLEGNPDTHSWEMVGKKKGVSGQKDGGQTESNEEGKENRDRDRDYSRRRGGPPRRGRGASRGREF
RGQENGLDGTKSGGPSGRGTERGRRGRGRGRGGSGRRGGRFSAQGMGTFNPADYAEPANTDDNYGNSSGNTWNNT
GHFEPDDGTSAWRTATEEWGTEDWNEDLSETKIFTASNVSSVPLPAENVTITAGQRIDLAVLLGKTPSTMENDSS
NLDPSQAPSLAQPLVFSNSKQTAISQPASGNTFSHHSMVSMLGKGFGDVGEAKGGSTTGSQFLEQFKTAQALAQL
AAQHSQSGSTTTSSWDMGSTTQSPSLVQYDLKNPSDSAVHSPFTKRQAFTPSSTMMEVFLQEKSPAVATSTAAPP
PPSSPLPSKSTSAPQMSPGSSDNQSSSPQPAQQKLKQQKKKASLTSKIPALAVEMPGSADISGLNLQFGALQFGS
EPVLSDYESTPTTSASSSQAPSSLYTSTASESSSTISSNQSQESGYQSGPIQSTTYTSQNNAQGPLYEQRSTQTR
RYPSSISSSPQKDLTQAKNGFSSVQATQLQTTQSVEGATGSAVKSDSPSTSSIPPLNETVSAASLLTTTNQHSSS
LGGLSHSEEIPNTTTTQHSSTLSTQQNTLSSSTSSGRTSTSTLLHTSVESEANLHSSSSTFSTTSSTVSAPPPVV
SVSSSLNSGSSLGLSLGSNSTVTASTRSSVATTSGKAPPNLPPGVPPLLPNPYIMAPGLLHAYPPQVYGYDDLQM
LQTRFPLDYYSIPFPTPTTPLTGRDGSLASNPYSGDLTKFGRGDASSPAPATTLAQPQQNQTQTHHTTQQTFLNP
ALPPGYSYTSLPYYTGVPGLPSTFQYGPAVFPVAPTSSKQHGVNVSVNASATPFQQPSGYGSHGYNTGRKYPPPY
KHFWTAES

MSRALDVLQMKEEDVLKFLAAGTHLGGTNLDFQMEQYIYKRKSDGIYIINLKRTWEKLLLAARAIVAIENPADVS VISSRNTGQRAMLKFAAATGATPIAGHFTPGTFTNRIQAAFREPQLPVVTDPRADHQPLTEVSYVNLPTIALCNT DSPLRYVDIAIPCNNKGAHSVGWMWWMLAQEVLRMRGTISREHPWEVMPDLCFYRDPEEIEKEEQAAAEEAVTKE EFQGEWTAPAPEFTATQPEVADWSEGLQVPSVSIQSSLLKTGALSLPRKTGLQLPLLRPLNGVGATTEWS

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CGAAATTGAACCGGAGCCATCTTGGGCCCGGCGCGCAGACCCGCGGAGTTTCCCGTGCCGACGCCCCGGGGCCAC TTCCAGTGCGGAGTAGCGGAGGCGTGGGGGCCTCGAGGGGCTGGCGCCCAGCGGTCGGGCCAGGGTCGTGCC GCCGGCGGGTCGGGCCAATGCCTCGCGGGCGCAATGAATCCGCGGCAGGGGTATTCCCTCAGCGGATACTA CACCCATCCATTTCAAGGCTATGAGCACAGACAGCTCAGGTACCAGCAGCCTGGGCCAGGATCTTCCCCCAGTAG TTTCCTGCTTAAGCAAATAGAATTTCTCAAGGGGCAGCTCCCAGAAGCACCGGTGATTGGAAAGCAGACACCGTC GGACATCAGGGGTGTCCCCAGGGGCGTGCATCTCAGAAGTCAGGGGCTCCAGAGAGGGGTTCCAGCATCCTTCACC ACGTGGCAGGAGTCTGCCACAGAGAGGTGTTGATTGCCTTTCCTCACATTTCCAGGAACTGAGTATCTACCAAGA GAAACTTGGGACTCCGAAGAAAGAAATCAATCGAGTTTTATACTCCCTGGCAAAGAAGGGCCAAGCTACAGAAAGA GGCAGGAACACCCCCTTTGTGGAAAATCGCGGTCTCCACTCAGGCTTGGAACCAGCAGCAGCGGAGTGGTAAGACC AGACGGTCATAGCCAAGGAGCCCCAAACTCAGACCCGAGTTTGGAACCGGAAGACAGAAACTCCACATCTGTCTC AGAAGATCTTCTTGAGCCTTTTATTGCAGTCTCAGCTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACCAGA CAGTCATAGCCAAGGATCCCCAAACTCAGACCCAGGTTTGGAACCTGAAGACAGCAACTCCACATCTGCCTTGGA AGATCCTCTTGAGTTTTTAGACATGGCCGAGATCAAGGAGAAAATCTGCGACTATCTCTTCAATGTGTCTGACTC CTCTGCCCTGAATTTGGCTAAAAATATTGGCCTTACCAAGGCCCGAGATATAAATGCTGTGCTAATTGACATGGA GCAAATCAAGAGAAATACGAACAGTGTTCCTGAAACCGCTCCAGCTGCAATCCCTGAGACCAAAAGAAACGCAGA GTTCCTCACCTGTAATATACCCACATCAAATGCCTCAAATAACATGGTAACCACAGAAAAAGTGGAGAATGGGCA GGAACCTGTCATAAAGTTAGAAAACAGGCAAGAGGCCAGACCAGAACCAGCAAGACTGAAACCACCTGTTCATTA CAATGGCCCCTCAAAAGCAGGGTATGTTGACTTTGAAAATGGCCAGTGGGCCACAGATGACATCCCAGATGACTT GAATAGTATCCGCGCAGCACCAGGTGAGTTTCGAGCCATCATGGAGATGCCCTCCTTCTACAGTCATGGCTTGCC ACGGTGTTCACCCTACAAGAAACTGACAGAGTGCCAGCTGAAGAACCCCATCAGCGGGCTGTTAGAATATGCCCA GTTCGCTAGTCAAACCTGTGAGTTCAACATGATAGAGCAGAGTGGACCACCCCATGAACCTCGATTTAAATTCCA GGTTGTCATCAATGGCCGAGAGTTTCCCCCAGCTGAAGCTGGAAGCAAGAAAGTGGCCAAGCAGGATGCAGCTAT GAAAGCCATGACAATTCTGCTAGAGGAAGCCAAAGCCAAGGACAGTGGAAAATCAGAAGAATCATCCCACTATTC CACAGAGAAAGAATCAGAGAAGACTGCAGAGTCCCAGACCCCCACCCCTTCAGCCACATCCTTCTTTTCTGGGAA GAGCCCCGTCACCACACTGCTTGAGTGTATGCACAAATTGGGGAACTCCTGCGAATTCCGTCTCCTGTCCAAAGA AGGCCCTGCCCATGAACCCAAGTTCCAATACTGTGTTGCAGTGGGAGCCCAAACTTTCCCCAGTGTGAGTGCTCC CAGCAAGAAAGTGGCAAAGCAGATGGCCGCAGAGGAAGCCATGAAGGCCCTGCATGGGGGAGGCGACCAACTCCAT GGCTTCTGATAACCAGCCTGAAGGTATGATCTCAGAGTCACTTGATAACTTGGAATCCATGATGCCCAACAAGGT TGGCTTTGCTGCTGAATTCAAGTTGGTCGACCAGTCCGGACCTCCTCACGAGCCCAAGTTCGTTTACCAAGCAAA TCTCCGTGTCTTGATTGGGGAGAACGAGAAGGCAGAACGCATGGGTTTCACAGAGGTAACCCCAGTGACAGGGGC CAGTCTCAGAAGAACTATGCTCCTCCTCAAGGTCCCCAGAAGCACAGCCAAAGACACTCCCTCTCACTGGCAG CACCTTCCATGACCAGATAGCCATGCTGAGCCACCGGTGCTTCAACACTCTGACTAACAGCTTCCAGCCCTCCTT GCTCGGCCGCAAGATTCTGGCCGCCATCATTATGAAAAAAGACTCTGAGGACATGGGTGTCGTCAGCTTGGG AACAGGGAATCGCTGTGAAAGGAGATTCTCTCAGCCTAAAAGGAGAAACTGTCAATGACTGCCATGCAGAAAT AATCTCCCGGAGAGGCTTCATCAGGTTTCTCTACAGTGAGTTAATGAAATACAACTCCCAGACTGCGAAGGATAG TATATTTGAACCTGCTAAGGGAGGAAAAGCTCCAAATAAAAAAGACTGTGTCATTCCATCTGTATATCAGCAC TGCTCCGTGTGGAGATGGCGCCCTCTTTGACAAGTCCTGCAGCGACCGTGCTATGGAAAGCACAGAATCCCGCCA CTACCCTGTCTTCGAGAATCCCAAACAAGGAAAGCTCCGCACCAAGGTGGAGAACGGAGAAGGCACAATCCCTGT GGAATCCAGTGACATTGTGCCTACGTGGGATGGCATTCGGCTCGGGGAGAGACTCCGTACCATGTCCTGTAGTGA CAAAATCCTACGCTGGAACGTGCTGGGCCTGCAAGGGGCACTGTTGACCCACTTCCTGCAGCCCATTTATCTCAA ATCTGTCACATTGGGTTACCTTTTCAGCCAAGGGCATCTGACCCGTGCTATTTGCTGTCGTGTGACAAGAGATGG GAGTGCATTTGAGGATGGACTACGACATCCCTTTATTGTCAACCACCCCAAGGTTGGCAGAGTCAGCATATATGA TTCCAAAAGGCAATCCGGGAAGACTAAGGAGACAAGCGTCAACTGGTGTCTGGCTGATGGCTATGACCTGGAGAT

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TCTATTTAAGAAGCTCTGCTCCTTCCGTTACCGCAGGGATCTACTGAGACTCTCCTATGGTGAGGCCAAGAAAGC TGCCCGTGACTACGAGACCGCCAAGAACTACTTCAAAAAAGGCCTGAAGGATATGGGCTATGGGAACTGGATTAG CAAACCCCAGGAGGAAAAGAACTTTTATCTCTGCCCAGTATAGTATGCTCCAGTGACAGATGGATTAGGGTGTGT CCCAAAGCATACATAGTCACTGAGCACCTGCGGTCCATTTCCTCTTAAAAGTTTTGTTTTGATTTGTTTCCATTT CCTTTCCCTTTGTGTTTGCTACACTGACCTCTTGCGGTCTTGATTAGGTTTCAGTCAACTCTGGATCATGTCAGG GACTGATAATTTCATTTGTGGATTACGCAGACCCCTCTACTTCCCCTCTTTCCCTTCTGAGATTCTTTCCTTGTG ATCTGAATGTCTCCTTTTCCCCCTCAGAGGGCAAAGAGGTGAACATAAAGGATTTGGTGAAACATTTGTAAGGGT AGGAGTTGAAAACTGCAGTTCCCAGTGCCACGGAAGTGTGATTGGAGCCTGCAGATAATGCCCAGCCATCCTCCC GCAGCTGGGAAGTCTAGAACCAGCCAGACTGGGTTAAGGGAGCTGCTCAAGCAATAGCAGAGGTTTCACCCGGCA GGATGACACAGACCACTTCCCAGGGAGCACGGGCATGCCTTGGAATATTGCCAAGCTTCCAGCTGCCTCTTCTCC TAAAGCATTCCTAGGAATATTTTCCCCGCCAATGCTGGGCGTACACCCTAGCCAACGGGACAAATCCTAGAGGGT ATAAAATCATCTCTGCTCAGATAATCATGACTTAGCAAGAATAAGGGCAAAAAATCCTGTTGGCTTAACGTCACT GTTCCACCCGGTGTAATATCTCTCATGACAGTGACACCAAGGGAAGTTGACTAAGTCACATGTAAATTAGGAGTG TTTTAAAGAATGCCATAGATGTTGATTCTTAACTGCTACAGATAACCTGTAATTGAGCAGATTTAAAATTCAGGC ATACTTTTCCATTTATCCAAGTGCTTTCATTTTTCCAGATGGCTTCAGAAGTAGGCTCGTGGGCAGGGCGCAGAC CTGATCTTTATAGGGTTGACATAGAAAGCAGTAGTTGTGGGTGAAAGGGCAGGTTGTCTTCAAACTCTGTGAGGT AGAATCCTTTGTCTATACCTCCATGAACATTGACTCGTGTGTTCAGAGCCTTTGGCCTCTCTGTGGAGTCTGGCT CTCTGGCTCCTGTGCATTCTTTGAATAGTCACTCGTAAAAACTGTCAGTGCTTGAAAACTGTTTCCTTTACTCATG TTGAAGGGACTTTGTTGGCTTTTAGAGTGTTGGTCATGACTCCAAGAGCAGGGCAGGGAAGAGCCCAAGCATAGA CTTGGTGCCGTGGTGATGCCTGCAGTCCAGTTTTGTGATGCTGCTTTTACGTGTCCCTCGATAACAGTCAGCTAG TTCATCTGGGAACGTGCTGAGCCAGCACCCTCAGATGATTTCCCTCCAAACTGCTGACTAGGTCATCCTCTGTCT GGTAGAGACATTCACATCTTTGCTTTTATTCTATGCTCTCTGTACTTTTGACCAAAAATTGACCAAAGTAAGAAA ATGCAAGTTCTAAAAATAGACTAAGGATGCCTTTGCAGAACACCAAAGCATCCCAAGGAACTGGTAGGGAAGTGG CGCCTGTCTCCTGGAGTGGAAGAGGCCTGCTCCCTGGCTCTGGGTCTGCTGGGGGCACAGTAAATCAGTCTTGGC ACCCACATCCAGGGCAGAGAGGTCTGTGGTTCTCAGCATCAGAAGGCAGCCGCAGCCCCTCTCCTCTTCAGGCTAC AGGGTTGTCACCTGCTGAGTCCTCAGGTTGTTTGGCCTCTCTGGTCCATCTTGGGCATTAGGTTCTCCAGCAGAG CTCTGGCCAGCTGCCTCTTCTTTAACTGGGAACACAGGCTCTCACAAGATCAGAACCCCCACTCACCCCCAAGAT CTTATCTAGCAAGCCTGTAGTATTCAGTTTCTGTTGTAGGAAGAGAGCGAGGCATCCCTGAATTCCACGCATCTG CTGGAAACGAGCCGTGTCAGATCGCACATCCCTGCGCCCCCATGCCCCTCTGAGTCACACAGGACAGAGGAGGCCA TTCTTTTTAATGATTTTTTGTAGTTGATTTGTCTGAACTGTGGCTACTGTGCATTCCTTGAATAATCACTTGTAAA AÁTTGTCAGTGCTTGAAGCTGTTTCCTTTACTCACATTGAAGGGACTTCGTTGGTTTTTTTGGAGTCTTGGTTGTG ACTCCAAGAGCAGAGTGAGGAAGACCCCCAAGCATAGACTCGGGTACTGTGATGATGGCTGCAGTCCAGTTTTAT ATCTGAATTCTT

GAGCCAGCGAGGAGTGAAGCTGAGCCTGGCCTCACACGCTCCTAGAGGACCACCTCCTGAGAGAGTTCTTTCACC GGACTCCAGGCAGCCCCAGAGAACCGAAGCCAAAGCCAAAGAGAGACTGGAGCCAAGATACTGGTGGGGGAGATTG AGCCAGGCCCCAAGATGGACACTTCTGGGCACTTCCATGACTCGGGGGTGGGGGACTTGGATGAAGACCCCAAGT CGCCACCAGCAGCCCCCAGCAGCCCCTGGGACCCTCGCTGCAGCCTCAGCCTCCGCAGCTTCAGCAGCAGCAGC TCCACCTGGCCTGCTCCACCTCTCCCACCGCTTTCAGGGCCCCCCCTTCGTCCAACTCCACCGCCATCCTCC CAAGTGGGCCTGGCGGAGGCAGCCGGCACCGACAGCCCCCTGGTGCACCGGCGGGACAGCAACCCCTTCA CGGAGATCGCCATGAGCTCCTGCAAGTATAGCGGTGGGGTCATGAAGCCCCTCAGCCGCCTCAGCGCCTCCCGGA GGAACCTCATCGAGGCCGAGACTGAGGGCCAACCCCTCCAGCTTTTCAGCCCTAGCAACCCCCGGAGATCGTCA CCGGCACCACCACCACCACCACCTTCCCCAAAGCCAACAAGCGGAAAAACCAAAACATTGGCTATAAGCTGG GACACAGGAGGGCCCTGTTTGAAAAGAGAAAGCGACTGAGTGACTATGCTCTGATTTTTGGGATGTTTGGAATTG TTGTTATGGTGATAGAGACCGAGCTCTCTTGGGGTTTGTACTCAAAGGACTCCATGTTTTCGTTGGCCCTGAAAT GCCTTATCAGTCTGTCCACCATCATCCTTTTGGGCTTGATCATCGCCTACCACACGTGAAGTCCAGCTCTTCG TGATCGACAATGGCGCGGATGACTGGCGGATAGCCATGACCTACGAGCGCATCCTGTACATCAGCCTGGAGATGC TGGTGTGCGCCATCCACCCCATTCCTGGCGAGTACAAGTTCTTCTGGACGGCACGCCTGGCCTTCTCCTACACAC CCTCCCGGGCGGAGGCCGATGTGGACATCATCCTGTCTATCCCCATGTTCCTGCGCCTGTACCTGATCGCCCGAG TCATGCTGCTGCACAGCAAGCTCTTCACCGATGCCTCGTCCCGCAGCATCGGGGCCCTCAACAAGATCAACTTCA ACACCCGCTTTGTCATGAAGACGCTCATGACCATCTGCCCTGGCACTGTGCTGCTCGTGTTCAGCATCTCTCTGT GGATCATTGCTGCCTGGACCGTCCGTGTCTGTGAAAGGTACCATGACCAGCAGGACGTAACTAGTAACTTCTGG GTGCCATGTGGCTCATCTCCATCACATTCCTTTCCATTGGTTATGGGGACATGGTGCCCCACACATACTGTGGGA AAGGTGTCTCTCCTCACTGGCATCATGGGTGCAGGCTGCACTGCCCTTGTGGTGGCCGTGGTGGCCCGAAAGC TGGAACTCACCAAAGCGGAGAAGCACGTTCATAACTTCATGATGGACACTCAGCTCACCAAGCGGATCAAGAATG CTGCAGCCAATGTCCTTCGGGAAACATGGTTAATCTATAAACACACAAAGCTGCTAAAGAAGATTGACCATGCCA AAGTGAGGAAACACCAGAGGAAGTTCCTCCAAGCTATCCACCAGTTGAGGAGCGTCAAGATGGAACAGAGGAAGC TGAGTGACCAAGCCAACACTCTGGTGGACCTTTCCAAGATGCAGAATGTCATGTATGACTTAATCACAGAACTCA ATGACCGGAGCGAAGACCTGGAGAAGCAGATTGGCAGCCTGGAGTCGAAGCTGGAGCATCTCACCGCCAGCTTCA ACTCCCTGCCGCTGCTCATCGCCGACACCCTGCGCCAGCAGCAGCAGCAGCTCCTGTCTGCCATCATCGAGGCCC GGGGTGTCAGCGTGGCAGTGGGCACCACCCCACACCCCAATCTCCGATAGCCCCCATTGGGGTCAGCTCCACCTCCT AGATGCAAATCAACTCTCTCCTGGTCGCTTTGCCATCAAGAAACATTCAGACCAGGGAACGGAAAGAAGAAGACAC CGAGCTAATTAACTAACTCATGTTCATTCAGCGTGCTTGGTCCGACATGCCTTGAAACCAGAAATCTAATCTCTG TTTAGGTGCCTCTACTTGGGAGCGGGAAGAGGAGATGACAGGAAGCGACGCCTCTGGCAGGGCCCTTGCTGCAGA GTTGGTGGAGAACAGAAATCCACGCTCAATCTCAGGTCTTCACGCGGGGGGTGGGGGTCAGATGCACTGAAGTAG GCCATGGGGGTCTTTGAACACACCTCTCTCTTTCCTTTTGTCTACGGAAGCCTCTGGGTGACAAAAGTAAAAGA

484/6881 FIGURE 452

GAAGGTTCTGGGCGGGGCTGGACTGTTCTAAGTGAGTTCGGGTGGGGGAGCTTCACGAGGGGAGGCTGCTCTGTG AAGGAACCGCCTTTCTCCCGCGTGTCTCACCCTTTTCTCCCCATATCTGTTTGGACATGAGCTGAGGGCACGGT CGCGGGCGGTCAGCCCTGTTCGCAGCTACGGCGAGGAGGGGCGCGATTGTTCCTTGTTGCCGCTCCGCTTAGTGG $\tt CCGCGTCCATTCCGCGCGTGTCCCGATTTTAGGGGTAGGGAGAAGTGTCAGCTTCAGGCATCGCGAGGCGTGGC$ GGCCCCATGCCCCGCTGGGAGGCGCCCCGCGGCTGTACTGCTGTTCAGCGGCAAGAGGAAATCCGGGAAGGAC TTCGTGACCGAGGCGCTGCAGAGCAGACTTGGAGCTGATGTCTGTGCTGTCCTCCGGCTCTCTGGTCCACTCAAG GAACAGTATGCTCAGGAGCATGGCTTGAACTTCCAGAGACTCCTGGACACCAGCACCTACAAGGAGGCCTTTCGG AAGGACATGATCCGCTGGGGAGAGAGAAACGCCAGGCTGACCCAGGCTTCTTTTGCAGGAAGATTGTGGAGGGC ATCTCCCAGCCCATCTGGCTGGTGAGTGACACACGGAGAGTGTCTGACATCCAGTGGTTTCGGGAGGCCTATGGG GCCGTGACGCAGACGGTCCGCGTTGTAGCGTTGGAGCAGAGCCGACAGCAGCGGGGCTGGGTGTTCACGCCAGGG GTGGACGATGCTGAGTCAGAATGTGGCCTGGACAACTTCGGGGACTTTGACTGGGTCATCGAGAACCATGGAGTT GAACAGCGCCTGGAGGAGCAGTTGGAGAACCTGATAGAATTTATCCGCTCCAGACTT<u>TAG</u>TCACTAGGTTCTAGG AGTGAGCTGGGGCCTGCTGAGGTGGGGGTGGGGCTGACTCTGCAAAATGGGGGTGTCCCCCGATCCTGGCCGAGG $\tt CTCATTTTCTCCATGGGGAAGACAGCCATGCTCTTCAGGAGGAGACTCCAAGGGCAAAGGAGGGTGTCTTGGCTG$ TGCTTGAAGGCGAAACCCTGCCATATCCCCAGTGCCAGTCCCCTCAGCCTGTGGTGGCCTTGCATCCTGACTGGA TGTTCTCAGCCCCTTGTTCTGGGCAAGAACCCAGAGCTCCCCAGTGTGGATACTAATAAACCTCTTGGAGCACAC

MAPLGGAPRLVLLFSGKRKSGKDFVTEALQSRLGADVCAVLRLSGPLKEQYAQEHGLNFQRLLDTSTYKEAFRKD MIRWGEEKRQADPGFFCRKIVEGISQPIWLVSDTRRVSDIQWFREAYGAVTQTVRVVALEQSRQQRGWVFTPGVD DAESECGLDNFGDFDWVIENHGVEQRLEEQLENLIEFIRSRL

ATGGGGCCTGAAACTGTCTGGGTCTGAGCTGGGGAGCGGAAGCCACTTGTCCCTCTCCCCCAGGACTTCTGT GCAGGGGGCCAGGCTGGGCAGCCCCTCTTTCACCTCAACTATGGATCTCCTGCCCCCCAAGCCCAAGTACA ATCCACTCCGGAATGAGTCTCTGTCATCGCTGGAGGAAGGGGCTTCTGGGTCCACCCCCCGGAGGAGCTGCCTT CCCCATCAGCTTCATCCCTGGGGGCCCATCCTGCCTCCTCTGCCTGGGGACGATAGTCCCACTACCCTGTGCTCCT TCTTCCCCCGGATGAGCAACCTGAGGCTGGCCAACCCGGCTGGGGGGCCCCAGGGTCTAAGGGGGAGCCAGGAA GGGCAGCTGATGATGGGGGAGGGGATCGTAGGGGGCAGCCATGCCAGACTCAGGCCCCCTACCCCTCCTCCAGGACA TGAACAAGCTGAGTGGAGGCGGGGGGCGAGGACTCGGGTGGAAGGGGGCCAGCTTGGGGGGGAGGAGTGGACCC CCTACTTGGTTCGGTACATGGGTTGTGGGAGGTCCTCCAGTCAATGCGTGCCCTGGACTTCAACACCCCGGACTC AGGTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGGTGCTAAGGGGGGCGACAAGGAGGAGAAAGC CCTGTAGCCGCCCGCTCAGCTCTATCCTGGGGAGGAGTAACCTGAAATTTGCTGGAATGCCAATCACTCTCACCG CATTTGCATCCGGCGGGGATCCGGACACAGCCGAGTATGTCGCCTATGTTGCCAAAGACCCTGTGAATCAGAGAG CCTGCCACATTCTGGAGTGTCCCGAAGGGCTTGCCCAGGATGTCATCAGCACCATTGGCCAGGCCTTCGAGTTGC GGGGGGTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCGACCCACTGCACCCAATGCCCAGA CCCCCAGCCACTTGGGAGCTACATTGCCTGTAGGACAGCCTGTTGGGGGAGATCCAGAAGTCCGCAAACAGATGC CACCTCCACCCTGTCCAGGCAGAGAGCTTTTTGATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGG CCCGGCAAGCAGTGGTGGTGCTGGGCCCCCCAATCCTGCTATCAATGGCAGTGCACCCCGGGACCTGTTTGACA TGAAGCCCTTCGAAGATGCTCTTCGCGTGCCTCCACCTCCCCAGTCGGTGTCCATGGCTGAGCAGCTCCGAGGGG AGCCCTGGTTCCATGGGAAGCTGAGCCGGCGGGAGGCTGAGGCACTGCTGCAGCTCAATGGGGACTTCCTGGTAC GGGAGAGCACCACCTGGCCAGTATGTGCTCACTGGCTTGCAGAGTGGGCAGCCTAAGCATTTGCTACTGG TGGACCCTGAGGGTGTGGTTCGGACTAAGGATCACCGCTTTGAAAGTGTCAGCTATCAGCTACCACATGG ACAATCACTTGCCCATCATCTCTGCGGGCAGCGAACTGTGTCTACAGCAACCTGTGGAGCGGAAACTGTGATCTG CCCTAGCGCTCTCTCCAGAAGATGCCCTCCAATCCTTTCCACCCTAATCCTCAGCGCACCTCGTTTGGG AGGGTTTGAGTCAAAAGCCTGGGTGAGAATCCTGCCTCTCCCCAAACATTAATCACCAAAGTATTAATGTACAGA GTGGCCCTCACCTGGGCCTTTCCTGTGCCAACCTGATGCCCCTTCCCCAAGAAGGTGAGTGCTTGTCATGGAAA ATGTCCTGTGGTGACAGGCCCAGTGGAACAGTCACCCTTCTGGGCAAGGGGGAACAAATCACACCTCTGGGCTTC AGGGTATCCCAGACCCCTCTCAACACCCGCCCCCCCATGTTTAAACTTTGTGCCTTTGACCATCTCTTAGGTCT AATGATATTTTATGCAAACAGTTCTTGGACCCCTGAATTCAATGACAGGGATGCCAACACCTTCTTGGCTTCTGG GACCTGTGTTCTTGCTGAGCACCCTCTCCGGTTTGGGTTGGGATAACAGAGGCAGGAGTGGCAGCTGTCCCCTCT GCTCAGTGCCTCCTGGCCGGGGCCCCTCACCCCAAGGGGTCTGTATATACATTTCATAAGGCCTGCCCTCCCATG TTGCATGCCTATGTACTCTACGCCAAAGTGCAGCCCTTCCTCCTGAAGCCTCTGCCCTGCCCTTTCTGGGAG GGCGGGGTGGGGTGACTGAATTTGGGCCTCTTGTACAGTTAACTCTCCCAGGTGGATTTTGTGGAGGTGAGAAA AGGGGCATTGAGACTATAAAGCAGTAGACAATCCCCACATACCATCTGTAGAGTTGGAACTGCATTCTTTTAAAG ATGATAATCAATTATTACATTTATACATCACCTTTTTGACTTTTCCAAGCCCTTTTACAGCTCTTGGCATTTTCC CTAGGACTAGAAAAACTTGGGTCTCTTACCGCGAGACTGAGAGGCAGAAGTCAGCCCGAATGCCTGTCAGTTTCA TGGAGGGGAAACGCAAAACCTGCAGTTCCTGAGTACCTTCTACAGGCCCGGCCCAGCCTAGGCCCGGGGTGGCCA CACCACAGCAAGCCGGCCCCCCCTCTTTTGGCCTTGTGGATAAGGGAGAGTTGACCGTTTTCATCCTGGCCTCCT TTTGCTGTTTGGATGTTTCCACGGGTCTCACTTATACCAAAGGGAAAACTCTTCATTAAAGTCCGTATTTCTTCT

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GAAAGAGCCGGTGAAGGGGCAGAACAGGCAGGTTCCCTCGACCCAGGACCCCTGTTCCCAGGCTATGGCCCCCA GTGCCCTGTAGACCTGCAGGCCCCCGTGCTTGCGACCCCTATTTGGGGGGTCTGGGTGGCTACTGGAGGGCCTT GCAGAGGGCAGAGAAGGCAGGACCATGACATCTAGGGCCTCTGAACTTTCTCCGGGGCGCAGCGTGACGGCTGG CATCATCATTGTTGGAGATGAGATCCTTAAGTTGGAAACAACAAATGGCTTTTGAGTCCAAGAGTGATGCAATCA CAGTGACGCATTAAAACGGTTACTCCGGAGACATCAGAGCACTGTGGCTGGAGGCTGGGAGCCTGGCCAGGAAGC GGCGTGGTGGCTCACACCTATAATTCCAGCACTTTGGGAGGCTGAGGCAGGAGGATCACTTGAGACCAGGAATTC AACACCAGCCTGGGCAACATGGCAAGACCCCATTTCTACAAAAAAATTTAAAATGAGCTGAATGTGGTGGCACG CGCCTGTAGTCCCAGCTACTCGGAAGGCTGGGGTGGCCCTTGAAGCCAGGAGGTTGAGGCTGCAGTGAACTGTGA GTCCAGTCCAGGCCCCTCAGCAGCCTGAGGTGGTGTCCTTCAAAGAGCAGCACTGCATCATCAGGTGGATGCA GCCATCATCTTCAACCCCTCCCTTCATCCCTACAGTACTGATGGCCTCATCTTCCCCTTCAACCCCCAGGGACA CACTCAGGACACCACCACTCTTTCTGTGCCGGACACTGCGCTCCCTAGGGGTCCAGGTTTGCCGAGTCTCAGT TGTACCTGATGAGGTAGCCACCATTGCAGCTGAGGTCACTTCTTCTCCAACCGCTTCACCCATGTCCTCACAGC AGGGGGCATCGGCCCCACTCATGATGTGACCTTTGAGGCAGTGGCACAGGCCTTTGGAGATGAGCTGAAGCC $\verb|CTACCTCTTCCCAGGCATTCCAGAGCTGCTGCGGCGGGTGCTGGAGGGGATGAAGGGACTATTCCAAAACCCAGC| \\$ TGTTCAGTTCCACTCAAAGGAGCTATATGTGGCTGCTGATGAAGCCTCCATCGCCCCCATTCTGGCTGAGGCCCA GGCCCACTTTGGACGTAGGCTTGGCCTGGGTTCCTACCCTGACTGGGGCAGCAACTACTATCAGGTGAAGCTGAC TCTAGACTCAGAGGAAGAAGGACCCCTGGAGGAATGCTTGGCCTACCTGACTGCCCGTTTGCCCCAGGGATCGCT ${\tt GGTCCCCTACATGCCCAACGCTGTGGGGCCAGTGAGGCTGTATACAAACTCGCTGAATCAGGTAGGGACCT}$ TATGGAGGAGGGCATTATGCCCAAAGCCATTGGTGGCACCCCAGATCTCAGTAATGCAGGGGCTGTTGGGTGCT СТААЛААЛАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛА

MQPSSSTPPLHPYSTDGLIFPFNPQGHTQDTNTFFLCRTLRSLGVQVCRVSVVPDEVATIAAEVTSFSNRFTHVL TAGGIGPTHDDVTFEAVAQAFGDELKPHPKLEAATKALGGEGWEKLSLVPSSARLHYGTDPCTGQPFRFPLVSVR NVYLFPGIPELLRRVLEGMKGLFQNPAVQFHSKELYVAADEASIAPILAEAQAHFGRRLGLGSYPDWGSNYYQVK LTLDSEEEGPLEECLAYLTARLPQGSLVPYMPNAVEQASEAVYKLAESGRDLMEEGHYAQSHWWHPRSQ

CCCAAATATAGGTGGCACTGAGGAGCAGCAGGCAGAGTCAGAGAAGGCCCCGAGGGAGCCCTTGGAGCCCCAGGT CCTTCAGGACGATCTCCCAATTAGCCTCAAAAAGGTGCTTCAGACCAGTCTGCCTGAGCCCCTGAGGATCAAGTT GGAGCTGGACGGTGACAGTCATATCCTGGAGCTGCTACAGAATAGGGAGTTGGTCCCAGGCCGCCCAACCCTGGT GTGGTACCAGCCCGATGGCACTCGGGTGGTCAGTGAGGGACACACTTTGGAGAACTGCTGCTACCAGGGAAGAGT GCGGGGATATGCAGGCTCCTGGGTGTCCATCTGCACCTGCTCTGGGCTCAGAGGCTTGGTGGTCCTGACCCCAGA GAGAAGCTATACCCTGGAGCAGGGGCCTGGGGACCTTCAGGGTCCTCCCATTATTTCGCGAATCCAAGATCTCCA CCTGCCAGGCCACACCTGTGCCCTGAGCTGGCGGGAATCTGTACACACTCAGACGCCACCAGAGCACCCCCTGGG ACAGCGCCACATTCGCCGGAGGCGGGATGTGGTAACAGAGACCAAGACTGTGGAGTTGGTGATTGTGGCTGATCA CTCGGAGGCCCAGAAATACCGGGACTTCCAGCACCTGCTAAACCGCACACTGGAAGTGGCCCTCTTGCTGGACAC ATTCTTCCGGCCCCTGAATGTACGAGTGGCACTAGTGGGCCTGGAGGCCTGGACCCAGCGTGACCTGGTGGAGAT CAGCCCAAACCCAGCTGTCACCCTCGAAAACTTCCTCCACTGGCGCAGGGCACATTTGCTGCCTCGATTGCCCCA TGACAGTGCCCAGCTGGTGACTGGTACTTCATTCTCTGGGCCTACGGTGGGCATGGCCATTCAGAACTCCATCTG TTCTCCTGACTTCTCAGGAGGTGTGAACATGGACCACTCCACCAGCATCCTGGGAGTCGCCTCCTCCATAGCCCA TGAGTTGGGCCACAGCCTGGGCCTGGACCATGATTTGCCTGGGAATAGCTGCCCCTGTCCAGGTCCAGCCCCAGC CAAGACCTGCATCATGGAGGCCTCCACAGACTTCCTACCAGGCCTGAACTTCAGCAACTGCAGCCGACGGGCCCT GGAGAAAGCCCTCCTGGATGGAATGGGCAGCTGCCTCTTCGAACGGCTGCCTAGCCTACCCCCTATGGCTGCTTT CTGCGGAAATATGTTTGTGGAGCCGGGCGAGCAGTGTGACTGTGGCTTCCTGGATGACTGCGTCGATCCCTGCTG TGATTCTTTGACCTGCCAGCTGAGGCCAGGTGCACAGTGTGCATCTGACGGACCCTGTTGTCAAAATTGCCAGCT GCGCCCGTCTGGCTGGCAGTGTCGTCCTACCAGAGGGGATTGTGACTTGCCTGAATTCTGCCCAGGAGACAGCTC TTGTGCCTCCTATGCCCAGCAGTGCCAGTCACTTTGGGGACCTGGAGCCCAGCCCGCTGCGCCACTTTGCCTCCA GACAGCTAATACTCGGGGAAATGCTTTTGGGAGCTGTGGGCGCAACCCCAGTGGCAGTTATGTGTCCTGCACCCC TAGAGATGCCATTTGTGGGCAGCTCCAGTGCCAGACAGGTAGGACCCAGCCTCTGCTGGGCTCCATCCGGGATCT ACTCTGGGAGACAATAGATGTGAATGGGACTGAGCTGAACTGCAGCTGGGTGCACCTGGACCTGGGCAGTGATGT GGCCCAGCCCTCCTGACTCTGCCTGGCACAGCCTGTGGCCCTGGCCTGGTGTATAGACCATCGATGCCAGCG TGTGGATCTCCTGGGGGCACAGGAATGTCGAAGCAAATGCCATGGACATGGGGTCTGTGACAGCAACAGGCACTG CTACTGTGAGGAGGGCTGGGCACCCCTGACTGCACCACTCAGCTCAAAGCAACCAGCTCCCTGACCACAGGGCT GCTCCTCAGCCTCCTGGTCTTATTGGTCCTGGTGATGCTTGGTGCCGGCTACTGGTACCGTGCCCGCCTGCACCA GCGACTCTGCCAGCTCAAGGGACCCACCTGCCAGTACAGGGCAGCCCAATCTGGTCCCTCTGAACGGCCAGGACC GCCTGCCGACCCCCAGGGCCGGTGCCCATCGGGTGACCTGCCCGGCCCAGGGGCTGGAATCCCGCCCCTAGTGGT ${ t ACCCTCCAGACCAGCGCCACCGCCTCCGACAGTGTCCTCGCTCTACCTC}{ t { t CA}}{ t CCTCTCCGGAGGTTCCGCTGCCT}$ CCAAGCCGGACTTAGGGCTTCAAGAGGCGGGCGTGCCCTCTGGAGTCCCCTACCATGACTGAAGGCCGCCAGAGAC TGGCGGTGTCTTAAGACTCCGGGCACCGCCACGCGCTGTCAAGCAACACTCTGCGGACCTGCCGGCGTAGTTGCA GCGGGGGCTTGGGGGGCTGGGGGTTGGACGGGATTGAGGAAGGTCCGCACAGCCTGTCTCTGCTCAGTTGCA

490/6881 FIGURE 458

MRLALLWALGLLGAGSPLPSWPLPNIGGTEEQQAESEKAPREPLEPQVLQDDLPISLKKVLQTSLPEPLRIKLEL
DGDSHILELLQNRELVPGRPTLVWYQPDGTRVVSEGHTLENCCYQGRVRGYAGSWVSICTCSGLRGLVVLTPERS
YTLEQGPGDLQGPPIISRIQDLHLPGHTCALSWRESVHTQTPPEHPLGQRHIRRRRDVVTETKTVELVIVADHSE
AQKYRDFQHLLNRTLEVALLLDTFFRPLNVRVALVGLEAWTQRDLVEISPNPAVTLENFLHWRRAHLLPRLPHDS
AQLVTGTSFSGPTVGMAIQNSICSPDFSGGVNMDHSTSILGVASSIAHELGHSLGLDHDLPGNSCPCPGPAPAKT
CIMEASTDFLPGLNFSNCSRRALEKALLDGMGSCLFERLPSLPPMAAFCGNMFVEPGEQCDCGFLDDCVDPCCDS
LTCQLRPGAQCASDGPCCQNCQLRPSGWQCRPTRGDCDLPEFCPGDSSQCPPDVSLGDGEPCAGGQAVCMHGRCA
SYAQQCQSLWGPGAQPAAPLCLQTANTRGNAFGSCGRNPSGSYVSCTPRDAICGQLQCQTGRTQPLLGSIRDLLW
ETIDVNGTELNCSWVHLDLGSDVAQPLLTLPGTACGPGLVCIDHRCQRVDLLGAQECRSKCHGHGVCDSNRHCYC
EEGWAPPDCTTQLKATSSLTTGLLLSLLVLVLVLWLGAGYWYRARLHQRLCQLKGPTCQYRAAQSGPSERPGPPQ
RALLARGTKSQGPAKPPPPRKPLPADPQGRCPSGDLPGPGAGIPPLVVPSRPAPPPPTVSSLYL

491/6881 FIGURE 459

MSGRGKQGGKARAKAKSRSSRAGLQFPVGRVHRLLRKGNYAERVGAGAPVYMAAVLEYLTAEILELAGNAARDNK KTRIIPRHLQLAIRNDEELNKLLGKVTIAQGGVLPNIQAVLLPKKTESHHKAKGK

493/6881 FIGURE 461

CTTTCGCCATGCTGCCGGGCCGATCTCCGAGCGGAATCAGGATGCCACTGTGTACGTGGGGGGCCTGGATGAGA AGGTTAGTGAACCGCTGCTGTGGGAACTGTTTCTCCAGGCTGGACCAGTAGTCAACACCCCACATGCCAAAGGATA TCATGAACATGATCAAACTCTATGGGAAGCCAATACGGGTGAACAAAGCATCAGCTCACAACAAAAACCTGGATG TAGGGGCCAACATTTCATTGGGAACCTGGACCCTGAGATTGATGAGAAGTTGCTTTATGATACTTTCAGCGCCT TTGGGGTCATCTTACAAACCCCCAAAATTATGCGGGACCCTGACACAGGCAACTCCAAAGGTTATGCCTTTATTA ATTTTGCTTCATTTGATGCTTCGGATGCAGCAATTGAAGCCATGAATGGGCAGTACCTCTGTAACCGTCCTATCA CCGTATCTTATGCCTTCAAGAAGGACTCCAAGGGTGAGCGCCATGGCTCAGCAGCCGAACGACTTCTGGCAGCTC AGAACCCGCTCTCCCAGGCTGATCGCCCTCATCAGCTGTTTGCAGATGCACCTCCTCCACCCTCTGCTCCCAATC CTGTGGTATCATCATTGGGGTCTGGGCTTCCTCCACCAGGCATGCCTCCTCGGCTCCTTCCCACCCCAGTGC CACCTCCTGGAGCCCTCCCACCTGGGATACCCCCAGCCATGCCCCCACCACCTATGCCTCCTGGGGCTGCAGGAC ATGGCCCCCATCGGCAGGACCCCAGGGGCAGGACATCCTGGTCATGGACACTCACATCCTCACCCATTCCCAC CGGGTGGGATGCCCCATCCAGGGATGTCTCAGATGCAGCTTGCACACCATGGCCTCATGGCTTAGGACATCCCC ACGCTGGACCCCCAGGCTCTGGGGGCCAGCCACCGCCCGACCACCTGGAATGCCTCATCCTGGACCTCCTC CAATGGGCATGCCCCCCGAGGGCCTCCATTCGGATCTCCCATGGGTCACCCAGGTCCTATGCCTCCGCATGGTA TGCGTGGACCTCCTCCACTGATGCCCCCCCATGGATACACTGGCCCTCCACGACCCCCACCCTATGGCTACCAGC GGGGGCCTCTCCCTCCACCCAGACCCACTCCCCGGCCACCAGTTCCCCCTCGAGGCCCACTTCGAGGCCCTCTCC CTCAG<u>TAA</u>ATTCACATTTTCCTTCCTCCTGTTACATTTTCCCAATATCTTTTCTATTCCTTGGACCAATCAGAGA TGCTGTAGCTCCTTGGGGCAAAGGTACTAATCCCTTTCAGCACCCCCACTCCATTCCCCTTTTTAATGTAACTTT TTCCACAGGAGGTATTTCTTTTTTATGTTGGTCCTGAGTATTTTGCAAATGCACAGAGAAAATAAAACTAAACTC CTTGTTAAAAAAAAAAAAAAAAAAA

MAAGPISERNQDATVYVGGLDEKVSEPLLWELFLQAGPVVNTHMPKDRVTGQHQGYGFVEFLSEEDADYAIKIMN MIKLYGKPIRVNKASAHNKNLDVGANIFIGNLDPEIDEKLLYDTFSAFGVILQTPKIMRDPDTGNSKGYAFINFA SFDASDAAIEAMNGQYLCNRPITVSYAFKKDSKGERHGSAAERLLAAQNPLSQADRPHQLFADAPPPPSAPNPVV SSLGSGLPPPGMPPPGSFPPPVPPFGALPPGIPPAMPPPPMPPGAAGHGPPSAGTPGAGHPGHGHSHPHPFPPGG MPHPGMSQMQLAHHGPHGLGHPHAGPPGSGGQPPPRPPPGMPHPGPPPMGMPPRGPPFGSPMGHPGPMPPHGMRG PPPLMPPHGYTGPPRPPYGYQRGPLPPPRPTPRPPVPPRGPLRGPLPQ

495/6881 FIGURE 463A

GCCGGGAGCAGTCGCCGCTGCCGCCCGCCGCGGGACCCCCGTCCTCGCCCGGGACTCCTTACCCGGGG AACCTAGACCAGGTCTCCAGAGGCTTGTGGAAGAAGCAGGCGACCCTTCCTGAGTTATCCTGGCTTAGCCTCC CAATCTGGCTCCCCTTCCCCTTCCCCTGCTCCCCTGTCCCTTCCCCATCCACCCAACTGAACTGGGTA CCCAGAGATACTGGAACACGCTTCATCTAAGTAACTGTGGGGAGGGGTCTTTTTGACTCTACAAGTCCTTGAGCA AAAAGCTGAAAAAGAAGCAGGAGGTGGAGAAGACCCAGTGAAGTGCCCCAAGCCCCATC<u>ATG</u>GAAGAGGGCTTCC GAGACCGGGCAGCTTTCATCCGTGGGGCCAAAGACATTGCTAAGGAAGTCAAAAAGCATGCGGCCAAGAAGGTGG TGAAGGGCCTGGACAGAGTCCAGGACGAATATTCCCGAAGATCGTACTCCCGCTTTGAGGAGGAGGATGATGATG ATGACTTCCCTGCTCCCAGTGATGGTTATTACCGAGGAGGAGGGACCCAGGATGAGGAGGAGGTGGTGCATCCA GTGATGCTACTGAGGGCCATGACGAGGATGATGAGATCTATGAAGGGGAATATCAGGGCATTCCCCGGGCAGAGT TACGGGAGTGTGGCCACGGCCGCTTCCAGTGGACACTGTATTTTGTGCTTGGTCTGGCCGCTGATGGCTGACGGTG TGGAGGTCTTTGTGGTGGGCTTCGTGCTGCCCAGCGCTGAGAAAGACATGTGCCTGTCCGACTCCAACAAAGGCA TGCTAGGCCTCATCGTCTACCTGGGCATGATGGTGGGAGCCTTCCTCTGGGGAGGTCTGGCTGACCGGCTGGGTC GGAGGCAGTGTCTGCTCATCTCGCTCTCAGTCAACAGCGTCTTCGCCTTCTTCTCATCTTTTTGTCCAGGGTTACG GCACTTTCCTCTTCTGCCGCCTACTTTCTGGGGTTGGGATTGGAGGGTCCATCCCCATTGTCTTCTCCTATTTCT CCGAGTTTCTGGCCCAGGAGAAACGAGGGGAGCATTTGAGCTGGCTCTGCATGTTTTGGATGATTGGTGGCGTGT ACGCAGCTGCTATGGCCTGGGCCATCATCCCCCACTATGGGTGGAGTTTTCAGATGGGTTCTGCCTACCAGTTCC ACAGCTGGAGGGTCTTCGTCCTCGTCTGCGCCTTTCCTTCTGTGTTTTGCCATTGGGGGCTCTGACCACGCAGCCTG AGAGCCCCCGTTTCTTCCTAGAGAATGGAAAGCATGATGAGGGCCTGGATGGTGCTGAAGCAGGTCCATGATACCA ACATGCGAGCCAAAGGACATCCTGAGCGAGTGTTCTCAGTAACCCACATTAAGACGATTCATCAGGAGGATGAAT TGATTGAGATCCAGTCGGACACAGGGACCTGGTACCAGCGCTGGGGGGTCCGGGCCTTGAGCCTAGGGGGGCAGG TTTGGGGGAATTTTCTCTCCTGTTTTGGTCCCGAATATCGGCGCATCACTCTGATGATGATGGGTGTGTGGTTCA CCATGTCATTCAGCTACTATGGCCTGACCGTCTGGTTTCCTGACATGATCCGCCATCTCCAGGCAGTGGACTACG CATCCCGCACCAAAGTGTTCCCCGGGGAGCGCGTAGAGCATGTAACTTTAACTTCACGTTGGAGAATCAGATCC ACCGAGGCGGCAGTACTTCAATGACAAGTTCATTGGGCTGCGGCTCAAGTCAGTGTCCTTTGAGGATTCCCTGT TTGAAGAGTGTTATTTTGAGGATGTCACATCCAGCAACACGTTTTTCCGCAACTGCACATTCATCAACACTGTGT TCTATAACACTGACCTGTTCGAGTACAAGTTTGTGAACAGCCGTCTGATAAACAGTACATTCCTGCACAACAAGG AGGGCTGCCCGCTAGACGTGACAGGGACGGGCGAAGGTGCCTACATGGTATACTTTGTGAGCTTCCTGGGGACAC GCCTTTTTGGCGGGGTCAGCATTGCATCCTĢGAATGCGCTGGACGTGTTGACTGTTGAACTCTACCCCTCAGACA AGAGGACCACAGCTTTTGGCTTCCTGAATGCCCTGTGTAAGCTGGCAGCTGTGCTGGGGGATCAGCATCTTCACAT CCTTCGTGGGAATCACCAAGGCTGCACCCATCCTCTTTGCCTCAGCTGCCCTTGCCCTTGGCAGCTCTCTGGCCC ${\tt TGAAGCTGCCTGAGACCCGGGGGGGGGGTGCTGCAG} {\tt TGAAGGGGTCTCTAGGGCTTTGGGATTGGCAGGCACACTG}$ TGAGACCAACACTCCTTCCCTCCCTGCCCTGCCATCCTGACCTCCAGAGCCCTCACTCCCCACTCCCCG TGTTTGGTGTCTTAGCTGTGTGCGTGTGCGTGTGCATGTGTAAACCCCGTGGGCAGGGACTACAGGGAAGG CTCCTTCATCCCAGTTTTGAGATGAAGCTGTACTCCCCATTTCCCACTGCCCTTGACTTTGCACAAGAGAAGACT GAGCCCCATCCTTCTCCCCCTGTTAGAGAGGGGCCCTTGCTTCCCTGTTCCAGGGGTTCCAGAATAGGCTTCCTG CCTTCCCCATCATTCCCTCTGCCTAGGCCCTGGTGAAACCACAGGTATGCAATTATGCTAGGGGCTGGGGCTCTG GTGTAGACCATGGACCAAAAGAACTTCTTAGAGTCTGAAGAGTGGGCCTCGGGTGCCCTCTCACATCTCCTGTTG GATGCTGGGGGAGAAGCAATAAACCTCAGCCCTCTGGCCTCCACTTTCCTCTCAATTTGGGCTGCAAATATGAAG TGTGTGAATGTGTATGTATACTTACATATGTGTGTGCATGTGCCATGGGGCGGGGGGGTATCACTATACTGTCCTC CTGTGTTGAGCCTGGGATGGAGGAGCCCTAGGCCAGCCTGGGATAAGAGTCCCACAGTCTAGGGAGATCTGAGGG CATCCGACAAGGCCCATCTCCTTCCCTCCAAGAAGCAGAGGCCTCCTCTGGAGTGAGAGGCTCCACCACTAC

496/6881 FIGURE 463B

MEEGFRDRAAFIRGAKDIAKEVKKHAAKKVVKGLDRVQDEYSRRSYSRFEEEDDDDDFPAPSDGYYRGEGTQDEE EGGASSDATEGHDEDDEIYEGEYQGIPRAESGGKGERMADGAPLAGVRGGLSDGEGPPGGRGEAQRRKEREELAQ QYEAILRECGHGRFQWTLYFVLGLALMADGVEVFVVGFVLPSAEKDMCLSDSNKGMLGLIVYLGMMVGAFLWGGL ADRLGRRQCLLISLSVNSVFAFFSSFVQGYGTFLFCRLLSGVGIGGSIPIVFSYFSEFLAQEKRGEHLSWLCMFW MIGGVYAAAMAWAIIPHYGWSFQMGSAYQFHSWRVFVLVCAFPSVFAIGALTTQPESPRFFLENGKHDEAWMVLK QVHDTNMRAKGHPERVFSVTHIKTIHQEDELIEIQSDTGTWYQRWGVRALSLGGQVWGNFLSCFGPEYRRITLMM MGVWFTMSFSYYGLTVWFPDMIRHLQAVDYASRTKVFPGERVEHVTFNFTLENQIHRGGQYFNDKFIGLRLKSVS FEDSLFEECYFEDVTSSNTFFRNCTFINTVFYNTDLFEYKFVNSRLINSTFLHNKEGCPLDVTGTGEGAYMVYFV SFLGTLAVLPGNIVSALLMDKIGRLRMLAGSSVMSCVSCFFLSFGNSESAMIALLCLFGGVSIASWNALDVLTVE LYPSDKRTTAFGFLNALCKLAAVLGISIFTSFVGITKAAPILFASAALALGSSLALKLPETRGQVLQ

498/6881 FIGURE 465

GGCAGGAAAAGCGGAAGAGGGAGCGAAAACCAACGTGTTCGGTGACAGACCCCAGCGCCGACTGAGCCTCTAAAG CGACTTCAGCTCTGCCCCACCACCACCACCGCGCGCCCCGGGAACACCCGCTCCGGGAAGAAACCTGAGGGGACTG $\tt CGGGGGGCACGAGGGACAGCTGAGGGAAGGGAGGACGCGAGAGAAACAGCGCGAGCACGCTGAGGGCCGGGGGTT$ GCCAGGAGAGGGGCCCGCGGACCCGCAGAGCGGAGGAAGGTCCGGGAGAAAAGGGGCGGGACGGAGAAATCCG GAGATCCGACAGCAGGGAACCGGAGCGCTCCGGGGGAGGGGCTTAATGCTGGGGAAGGGATGTCTTAAAAGAGGA GAAGCTTTAAATTAGACGATCGGAGAAGGCTGAGGGAATTGCTATGAAGGGGCGGAGCTGAAGTGTAGAGGACT CCTTTAGACAGCAGAAAGGGAAAGCCGTTGAGAAGTTCCCTTCAAACTCCACCTGCCTCCTCCAATTCAAACT CCCGCAATTTGAATTTTAGCCTAGGGGAATCAAAATAGTAGGAGCATTACTCTTGTTTCCTTTTTCAAAATCCCA CACCTCATCCTTCCTGCGACGCCATGTCCACCAACATTTGTAGTTTCAAGGACAGGTGCGTGTCCATCCTGTGTT TCTCTACAGACATCCCTCCTACCAACGCAGTGGACTTCACTGGAAGATGCTATTTCACCAAAATCTGCAAATGTA AACTGAAGGACATCGCATGTTTAAAATGTGGGAACATTGTAGGTTATCATGTGATTGTTCCATGTAGTTCCTGTC TTCTTTCCTGCAACAACAGACACTTCTGGATGTTTCACAGCCAGGCAGTTTATGATATTAACAGACTAGACTCCA CAGGTGTAAACGTCCTACTTCGGGGCAACTTGCCAGAGATAGAAGAGAGTACAGATGAAGATGTTTAAATATCT TAATGGATCAACTTTAAAATTGTTAGTTGCCAGTGATCTTTTTTGGAAAACAAAAATGGGGCATTTGTTGATTTA TCCTCTCCCCCACCTTTTTCTGCCCAGTGTAGGTGTATTCTTAAATTCAGACGGGAAGATTCTTTCACATATCAC TCAGTTACCTCCCAATCTGGGGGGGTTTTTCTTACAACTTGATACCAGATACCATTAATTTTACATTCCTGAATA AAGGCCTAGTACCCACGCATATTTCAACCATGCATATATCAAGTTCAACCGAGTTTTAATAGGGGATTAAAAAAA CAAGCTGTTAGGTTTCCATGGGCACTGGTTCTCATAGGTTCTATTGGTGATAACTGCTTTAACATGGAGCAAGAG TTTGTGAATCAGGAAATAGAATAAAATTAAAATTTAAAATATATAGAGGAATCCTCTTGATTGCTCAGCATGATGT ATTATGGATATTGTATTATGAGAGCTAAACCTAAATAAGTTATCCTGTTCCCTAGGACCTTCTCTGTAAATAGTG TTATAAAGAGCTGTTTTGTTTTGCTTTGCTTTGCTTTGTTTTTTTAAAGCTGCATTCAGAGCTACAAAGG

CAGCAGTGCTGTTTACTCATTGGAGGAACAGTACCTTGGCTTGGCTCTTGACGTGGACAGAATTAAAAAGGACCA AGAAGAGGAAGAAGACCAAGGCCCACCATGCCCCAGGCTCAGCAGGGAGCTGCTGGAGGTAGTAGAGCCTGAAGT CTTGCAGGACTCACTGGATAGATGTTATTCAACTCCTTCCAGTTGTCTTGAACAGCCTGACTCCTGCCAGCCCTA TGGAAGTTCCTTTTATGCATTGGAGGAAAAGCATGTTGGCTTTTCTCTTGACGTGGGAGAAATTGAAAAGAAGGG AAACCCACCATGCCCCAGGCTCAGCAGGGAGCTGCTGGATGAGAAAGGGCCTGAAGTCTTGCAGGACTCACTGGA ATTGGAGCAACAGCGTGTTGGCTTGGCTGTTGACATGGATGAAATTGAAAAGTACCAAGAAGTGGAAGAAGACCA AGACCCATCATGCCCCAGGCTCAGCGGGGAGCTGTTGGATGAGAAAGAGCCTGAAGTCTTGCAGGAGTCACTGGA ATTGGAGCAACAGCGTGTTGGCTTGGCTGTTGACATGGATGAAATTGAAAAGTACCAAGAAGTGGAAGAAGACCA TAGATGTTATTCGACTCCTTCAGGTTATCTTGAACTGCCTGACTTAGGCCAGCCCTACAGCAGTGCTGTTTACTC ATTGGAGGAACAGTACCTTGGCTTGGCTCTTGACGTGGACAGAATTAAAAAGGACCAAGAAGAAGAAGAAGAACCA AGGCCCACCATGCCCCAGGCTCAGCAGGGAGCTGCTGGAGGTAGTAGAGCCTGAAGTCTTGCAGGACTCACTGGA TAGATGTTATTCAACTCCTTCCAGTTGTCTTGAACAGCCTGACTCCTGCCAGCCCTATGGAAGTTCCTTTTATGC GCTCAACAGCATGCTGATGGAAGTGGAAGAGCCTGAAGTCTTGCAGGACTCACTGGATATATGTTATTCGACTCC GTCAATGTACTTTGAACTACCTGACTCATTCCAGCACTACAGAAGTGTGTTTTACTCATTTGAGGAAGAGCATAT ${\tt CAGCTTCGCCCTTTACGTGGACAATAGGTTTTTTACTTTGACGGTGACAAGTCTCCACCTGGTGTTCCAGATGGG}$ GAAGATTTGAATGAAAGTACAGTTCCATTTGGAAGCCCAGACATAGGATGGGTCAGTGGCCATGGCTCTATTCCT ATTCTCAAACCATGCCAGTGGCAACCTGTGCTCAGTCTGAAGACAATGGACCCACGTTAGGTGTGACACGTTCAC ${\tt ATAACTGTGCAGCACATGCCGGGAGTGATCAGTCAGACATTTTAATTTGAACCACGTATCTCTGGGTAGCTACAA}$ AATTCCTCAGGGATGTCATTTTGCAGGCATGTCTCTGAGCTTCTATACCTGCTCAAGGTCATTGTCATCTTTGTG $\tt TTTAGCTCATCCAAAGGTGTTACCCTGGTTTCAATGAACCTAACCTCATTCTTTGTGTCTTCAGTGTTGGCTTGT$ TTTAGCTGATCCATCTGTAACACAGGAGGGATCCTTGGCTGAGGATTGTATTTCAGAACCACCAACTGCTCTTGA CAATTGTTAACCCGCTAGGCTCCTTTGGTTAGAGAAGCCACAGTCCTTCAGCCTCCAATTGGTGTCAGTACTTAG GAAGACCACAGCTAGATGGACAAACAGCATTGGGAGGCCTTAGCCCTGCTCCTCTAATTCCATCCTGTAGAGAA CAGGAGTCAGGAGCCGCTGGCAGGAGCAGCATGTCACCCAGGACTCTGCCGGTGCAGAATATGAGCAATGCCAT GTTCTTGCAGAAAACGCTTAACCTGAGTTTCATAGGAGGTAATCACCAGACAACTGCAGAATGTAGAACACTGAG TCGGTTGAAAAAAGTAAAAGATA

MDEIEKYQEVEEDQDPSCPRLSRELLDEKEPEVLQDSLGRCYSTPSGYLELPDLGQPYSSAVYSLEEQYLGLALD VDRIKKDQEEEEDQGPPCPRLSRELLEVAEPEVLQDSLDRCYSTPSSCLEQPDSCQPYGSSFYALEEKHVGFSLD VGEIEKKGKGKKRRGRRSKKERRRGRKEGEEDQNPPCPRLNGVLMEVEEPEVLQDSLDICYSTPSMYFELPDSFQ HYRSVFYSFEEEHISFALYVDNRFFTLTVTSLHLVFQMGVIFTQ

CGGTGACGACAGGCAAAAGACCAGCTGGTCCCAGATTCGCTGCTGGATGCAGCCTTTCTCTCCC CTCTGTGACATTTCCAATTTTAGATAATGCCTCACATCTCTGTCCCCCGGGACCCCCTGGAGCCCCCATGATCC CCTGCTTGTGGGCTCCCAGCTGGCTGTCATGATGTACCTGTCACTGGGGGGCCTTCCGAAGTCTCAGTGCCCTATT GGCCCAGGGGGTCCTCCAGCTCCTCAAGGTCTGCCCTACTGTCCAGAACGATCTCCTCTTTAGTGGGTCCTGT GTCGGTGTCCTTTAGCCCAGTGCCATCACTGGCAGAGATTGTGGAGCGGAATCCCCGGGTAGAACCAGGGGGCCG GTACCGCCTGCAGGTTGTGAGCCCCGCTCCCGAACAGCCATCATTGTGCCTCATCGTGCCCGGGAGCACCACCT GGCTGGAAATGGAACATTTAACAGGGCAAAACTGTTGAACGTTGGGGTGCGAGAGGCCCTGCGTGATGAAGAGTG ACCCCGCCATGTTGCCGTTGCTATGAACAAGTTTGGATACAGCCTCCCGTACCCCCAGTACTTCGGAGGAGTCTC AGCACTTACTCCTGACCAGTACCTGAAGATGAATGGCTTCCCCAATGAATACTGGGGCTGGGGTGGTGAGGATGA CGACATTGCTACCAGGGTGCGCCTGGCTGGGATGAAGATCTCTCGGCCCCCACATCTGTAGGACACTATAAGAT GGTGAAGCACCGAGGAGATAAGGGCAATGAGGAAAATCCCCACAGATTTGACCTCCTGGTCCGTACCCAGAATTC CTGGACGCAAGATGGGATGAACTCACTGACATACCAGTTGCTGGCTCGAGAGCTGGGGCCTCTTTATACCAACAT CCTCCGAGGTTCACACTGACTCCTCCTTCCTGTCTACCTTAATCATGAAACCGAATTCATGGGGTTGTATTCTCC CCACCCTCAGCTCCTCACTGTTCTCAGAGGGATGTGAGGGGAACTGAACTCTGGTGCCGTGCTAGGGGGTAGGGGC CTTATGACTGTGAATCCTTGATGTCATGATTTTATGTGACGATTCCTAGGAGTCCCTGCCCCTAGAGTAGGAGCA GGGCTGGACCCCAAGCCCTCCTCTCCATGGAGAGAGAGTGATCTGGCTTCTCCTCGGACCTCTGTGAATAT ATAGCTCCCTCTTCTGGTCCTGGCTCAGGGGGCTGGGATTTTGATATATTTTCTAATAAAGGACTTTGTCTCGC

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MLRRLLERPCTLALLVGSQLAVMMYLSLGGFRSLSALFGRDQGPTFDYSHPRDVYSNLSHLPGAPGGPPAPQGLP YCPERSPLLVGPVSVSFSPVPSLAEIVERNPRVEPGGRYRPAGCEPRSRTAIIVPHRAREHHLRLLLYHLHPFLQ RQQLAYGIYVIHQAGNGTFNRAKLLNVGVREALRDEEWDCLFLHDVDLLPENDHNLYVCDPRGPRHVAVAMNKFG YSLPYPQYFGGVSALTPDQYLKMNGFPNEYWGWGGEDDDIATRVRLAGMKISRPPTSVGHYKMVKHRGDKGNEEN PHRFDLLVRTQNSWTQDGMNSLTYQLLARELGPLYTNITADIGTDPRGPRAPSGPRYPPGSSQAFRQEMLQRRPP ARPGPLSTANHTALRGSH

GGCACGAGGGCCCCAGGAGAGGCAGAGAGTGAGGGAAAGGGCCTGGCCGGCATGCACAGATAGGATCACGGTCCT GGGAGAATTCCTGCTCTTATAGTCTAACCTACCATGGCTTCTCTTTTCTCAAGGCTCCCTCATGCTGCCCTTTGG AGCCAGGAGCTGTGGGAGGAAACGCCCTCAGTAAAGATGACCGCGGTCACTGTTATCTAAACGCAAGTGAAGCCG AGTCACAGGACCCGGATGTTGTCAGTTCGACGGTAAACGACCCTGCCAGCTTCCAAGAGGGCGGCTTCACTGTGC GAATAGGTGAGAAGCCAAGAAGGAGGCGCGCTGGAGTTACTTCCGCCCGGGTTCTCCTTCCCGCAGTCTGCAGCCG GAGTAAGATGGCGGCCTGAGGGCTTTGTGCGGCTTCCGGGGCGTCGCGGCCCAGGTGCTGCGGCCTGGGGCTGG AGTCCGATTGCCGATTCAGCCCAGCAGAGGTGTTCGGCAGTGGCAGCCAGATGTGGAATGGGCACAGCAGTTTGG GGGAGCTGTTATGTACCCAAGCAAAGAAACAGCCCACTGGAAGCCTCCACCTTGGAATGATGTGGACCCTCCAAA GGACACAATTGTGAAGAACATTACCCTGAACTTTGGGCCCCAACACCCAGCAGCGCATGGTGTCCTGCGACTAGT GATGGAATTGAGTGGGGAGATGGTGCGGAAGTGTGATCCTCACATCGGGCTCCTGCACCGAGGCACTGAGAAGCT CATTGAATACAAGACCTATCTTCAGGCCCTTCCATACTTTGACCGGCTAGACTATGTGTCCATGATGTGTAACGA ACAGGCCTATTCTCTAGCTGTGGAGAAGTTGCTAAACATCCGGCCTCCTCCTCGGGCACAGTGGATCCGAGTGCT GTTTGGAGAAATCACACGTTTGTTGAACCACATCATGGCTGTGACCACACATGCCCTGGACCTTGGGGCCATGAC TGCTGCTTATATCCGGCCAGGAGGAGTGCACCAGGACCTACCCCTTGGGCTTATGGATGACATTTATCAGTTTTC TAAGAACTTCTCTCTCGGCTTGATGAGTTGGAGGAGTTGCTGACCAACAATAGGATCTGGCGAAATCGGACAAT TGACATTGGGGTTGTAACAGCAGAAGAAGCACTTAACTATGGTTTTAGTGGAGTGATGCTTCGGGGCTCAGGCAT CCAGTGGGACCTGCGGAAGACCCAGCCCTATGATGTTTACGACCAGGTTGAGTTTGATGTTCCTGTTGGTTCTCG AGGGGACTGCTATGATAGGTACCTGTGCCGGGTGGAGGAGATGCGCCAGTCCCTGAGAATTATCGCACAGTGTCT AAACAAGATGCCTCCTGGGGAGATCAAGGTTGATGATGCCAAAGTGTCTCCACCTAAGCGAGCAGAGATGAAGAC TTCCATGGAGTCACTGATTCATCACTTTAAGTTGTATACTGAGGGCTACCAAGTTCCTCCAGGAGCCACATATAC TGCCATTGAGGCTCCCAAGGGAGAGTTTGGGGTGTACCTGGTGTCTGATGGCAGCAGCCGCCCTTATCGATGCAA GATCAAGGCTCCTGGTTTTGCCCATCTGGCTGGTTTGGACAAGATGTCTAAGGGACACATGTTGGCAGATGTCGT ${ t TGCCATCATAGGTACCCAAGATATTGTATTTGGAGAAGTAGATCGG{ t TGA}{ t GCAGGGGAGCAGCGTTTGATCCCCCCC}$ GTGTGTGTATGTTCGTGTACACTTGGCTGTCAGGCTTTCTGTGCATGTACTAAAAAAAGGAGAAATTATAATAAAT

MAALRALCGFRGVAAQVLRPGAGVRLPIQPSRGVRQWQPDVEWAQQFGGAVMYPSKETAHWKPPPWNDVDPPKDT
IVKNITLNFGPQHPAAHGVLRLVMELSGEMVRKCDPHIGLLHRGTEKLIEYKTYLQALPYFDRLDYVSMMCNEQA
YSLAVEKLLNIRPPPRAQWIRVLFGEITRLLNHIMAVTTHALDLGAMTPFFWLFEEREKMFEFYERVSGARMHAA
YIRPGGVHQDLPLGLMDDIYQFSKNFSLRLDELEELLTNNRIWRNRTIDIGVVTAEEALNYGFSGVMLRGSGIQW
DLRKTQPYDVYDQVEFDVPVGSRGDCYDRYLCRVEEMRQSLRIIAQCLNKMPPGEIKVDDAKVSPPKRAEMKTSM
ESLIHHFKLYTEGYQVPPGATYTAIEAPKGEFGVYLVSDGSSRPYRCKIKAPGFAHLAGLDKMSKGHMLADVVAI
IGTQDIVFGEVDR

 ${\tt GCCCTTGCCTTGAGTCAGTGCGCTGCTCTCCAGCCCGCTTGAACGCTCCCCGCAGCCACCCATTGGA} \underline{{\tt AT}}$ GGCCAACAGGGGACCTGCATATGGCCTGAGCCGGGAGGTGCAGCAGAAGATTGAGAAACAATATGATGCAGATCT CTTCCAGAACTGGCTCAAGGATGGCACGGTGCTATGTGAGCTCATTAATGCACTGTACCCCGAGGGGCAGGCCCC AGTAAAGAAGATCCAGGCCTCCACCATGGCCTTCAAGCAGATGGAGCAGATCTCTCAGTTCCTGCAAGCAGCTGA GCGGACGCTGATGAATCTGGGTGGGCTGGCAGTAGCCCGAGATGATGGGCTCTTCTCTGGGGGATCCCAACTGGTT CCCTAAGAAATCCAAGGAGAATCCTCGGAACTTCTCAGATAACCAGCTGCAAGAGGGGCAAGAACGTGATCGGGTT ACAGATGGGCACCAACCGCGGGGGCTCTCAGGCAGGCATGACTGGCTACGGGATGCCACGCCAGATCCTCCCAGAGAGCCCCAGAGCTCTCAAGCTCCTTTCTGTCAGGGTGGGGGGTTCAGCCTGTCCTGTCACCTCTGAGGTG CCTGCTGGCATCCTCCCCCATGCTTACTAATACATTCCCTTCCCCATAGCCATCAAAACTGGACCAACTGGCC TCTTCCTTTCCCCTGGGACCAAAATTTAGGGGCCTCAGTCCCTCACCGCCATGCCCTGGCCTATTCTGTCTCTCC TTCTTCCCCCTGGCCTGTTCTGTCTCTGAGCTCTGTGTCCTCCGTTCATTCCATGGCTGGGAGTCACTGATGCTG $\verb|CCTCTGCCTTCTGATGCTGGACTGGCCTTGCTTCTACAAGTATGCTTCTCCCACAGCTGTGGCTGCAGGAACTTA|\\$ CAGCCTTCCCTGGCAGGGGCCCTCGTGGCTTCTCATTTTCCATTCCCTTCACTGTGGCTAAGGGGTGGGGTGAGG GTCATTTTTG

MANRGPAYGLSREVQQKIEKQYDADLEQILIQWITTQCRKDVGRPQPGRENFQNWLKDGTVLCELINALYPEGQA PVKKIQASTMAFKQMEQISQFLQAAERYGINTTDIFQTVDLWEGKNMACVQRTLMNLGGLAVARDDGLFSGDPNW FPKKSKENPRNFSDNQLQEGKNVIGLQMGTNRGASQAGMTGYGMPRQIL

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GTGGAGCCGAGCGGTGCGGAGCAGATCTGGTGGTTCTCCGGAGAGCAGCTTCCTCGGGTGTTACATGAGCCAAGC CCTCACTGTACAGAAGAGTGAGAGCTGAAACCTGTTCCCTGAGCTGATCAGAAGGACATCCCTTGGCCCCTCCAT $\tt CTGGGCTCCTGTGGATAGGAGGGGCTGGGTGAGCAGGCCAGCTGGGCTATGGTGTGGTGCCTCGGCCTGGCCGTC$ CTCAGCCTGGTCATCAGCCAGGGGGCTGACGGTCGAGGGAAGCCTGAGGTGGTATCGGTGGTGGGCCGGGCTGGG TTTGGATTCCTGCTTCCCATCTTCATCCAGTTCGGCCTCTACTCTCCCCGAATTGACCCTGATTACGTGGGACGA GTCCGGCTGCAGAAGGGGGCCTCTCTCCAGATTGAGGGTCTCCGGGTGGAAGACCAGGGCTGGTACGAGTGCCGC GTGTTCTTCCTGGACCACCACCACCCTGAAGACGATTTTGCTAACGGCTCCTGGGTGCATCTGACAGTCAATTCA CCCCCTCAATTCCAGGAGACACCTCCTGCTGTGTTGGAAGTGCAGGAACTGGAGCCTGTGACCCTGCGTTGTGTG GCCCGTGGCAGCCCCTGCCTCATGTGACGTGGAAGCTCCGAGGAAAGGACCTTGGCCAGGGCCAGGGCCAGGTG CAAGTGCAGAACGGGACGCTGCGGATCCGCCGGGTAGAGCGAGGCAGCTCTGGGGTCTACACCTGCCAAGCCTCC AGCACTGAGGGCAGCGCCACCCACCCAGCCAGCTGCTAGTGCTAGGACCCCCAGTCATCGTGGTGCCCCCAAG AACAGCACAGTCAATGCCTCCCAGGATGTTTCATTGGCCTGCCATGCTGAGGCATACCCTGCTAACCTCACCTAC AGCTGGTTCCAGGACAACATCAATGTCTTCCACATTAGCCGCCTGCAGCCCCGGGTGCGGATCCTGGTGGACGGG AGCCTGCGGCTGCTGGCCACCCAGCCTGATGATGCCGGCTGCTACACCTGTGTGCCCAGCAATGGCCTCCTGCAT CCACCCTCAGCCTCTGCCTACCTCACTGTGCTCTACCCAGCCCAGGTGACAGCTATGCCTCCTGAGACACCCCTG CCCATAGGCATGCCGGGGGTGATCCGCTGCCCGGTTCGTGCCAACCCCCCACTGCTCTTTGTCAGCTGGACCAAG GATGGAAAGGCCCTGCAGCTGGACAAGTTCCCTGGCTGGTCCCAGGGCACAGAAGGCTCACTGATCATCGCCCTG GGGAACGAGGATGCCCTGGGAGAATACTCCTGCACCCCCTACAACAGTCTTGGTACCGCCGGGCCCTCTCCTGTG ACCCGCGTGCTCAAGGCTCCCCCAGCTTTTATAGAGCGGCCCAAGGAAGAATATTTCCAAGAAGTAGGGCGG GAGCTGCTCATCCCCTGCTCCGCCCAAGGGGACCCTCCTCCTGTTGTCTCTTGGACCAAGGTGGGCCGGGGGCTG CAAGGCCAGGCCCAGGTGGACAGCAACAGCAGCCTCATCCTGCGACCATTGACCAAGGAGGCCCACGGGCACTGG GAATGCAGTGCCAGCAATGCTGTGGCCCGAGTGGCCACCTCCACGAACGTCTACGTGCTGGGCACTAGCCCTCAT GTTGTCACCAATGTGTCCGTGGTGGCTTTGCCCAAGGGTGCCAATGTCTCCTGGGAGCCTGGCTTTGATGGTGGT TATCTGCAGAGATTCAGTGTCTGGTACACCCCACTGGCCAAGCGTCCTGACCGAATGCACCATGACTGGGTGTCC TTGGCAGTGCCTGTGGGGGCTGCTCACCTCCTAGTGCCAGGGCTGCAGCCCCACACCCAGTACCAGTTCAGCGTG CTAGCTCAGAACAAGCTGGGGAGTGGTCCCTTCAGCGAAATCGTCTTGTCTGCTCCGGAAGGGCTTCCTACCACG CCAGCTGCACCCGGGCTTCCCCCAACAGAGATACCGCCTCCCCTGTCCCCTCCGCGGGGGTCTGGTGGCAGTGAGG ACACCCCGGGGGGTACTCCTGCATTGGGATCCCCCAGAGCTGGTCCCTAAGAGACTGGATGGCTACGTCTTGGAA GGCCTCATCAAGGTATGTTCTCTACGAGTTCCGCCTCGTGGCCTTCGCGGGCAGCTTCGTCAGCGACCCCAGCAA $\tt CGTGCTGGCCGGCGTGGTGGGCGGAGTCTGCTTTCTGGGAGTGGCCGTCCTTGTGAGCATCCTGGCCGGCTGCCT$ CCTGAACCGGCGCAGGGCTGCCCGCCGCCGCCAAGCCCCCCAAGATCCACCTCTTATCTTCTCCCGAC CGGGAAGTCAGCTGCACCCTCTGCTCTGGGCTCAGGCAGTCCTGACAGCGTGGCGAAGCTGAAGCTCCAGGGATC ATCTAGCCGGGGACCCTTACCTCTGGAGCCCATTTGCCGGGGCCCAGACGGGCGCTTTGTGATGGGGCCCACTGT GGCGGCCCCCAGGAAAGGTCAGGCCGGAGCAGGCAGAACCTCGGACTCCAGCCCAGCGTCTGGCCCGGTCCTT TGACTGTAGCAGCAGCCCCAGTGGGGCACCCCAGCCCCTCTGCATTGAAGACATCAGCCCTGTGGCACCCCC TCCAGCAGCCCCACCCAGTCCCTTGCCAGGTCCTGGACCCCTGCTCCAGTACCTGAGCCTGCCCTTCTTCCGAGA GATGAATGTGGATGGGGACTGGCCCCCGCTTGAGGAGCCCAGCCCTGCTGCACCCCCAGATTACATGGATACCCG GCGCTGTCCCACCTCATCTTCCTTCGTTCTCCAGAAACCCCTCCTGTATCCCCCAGGGAATCACTTCCTGGGGC TGTGGTAGGGGCTGGGGCCACTGCAGAGCCCCCTTACACAGCCCTGGCTGACTGGACACTGAGGGAGCGGCTGCT GCGGCCCCCTCCACAGCCCCCTCTGCAGGAGGCAGCTACCTCAGCCCTGCTCCAGGAGACACCAGCAGCTGGGC CAGTGGCCCTGAGAGATGGCCCCGAAGGGAGCATGTGGTGACAGTCAGCAAGAGGGAACACATCTGTGGACGA GAACTATGAGTGGGACTCAGAATTCCCTGGGGACATGGAATTGCTGGAGACTTTGCACCTGGGCTTGGCCAGCTC CCGGCTCAGACCTGAAGCTGAGCCAGAGCTAGGTGTGAAGACTCCAGAGGAGGGCTGCCTCCTGAACACTGCCCA

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